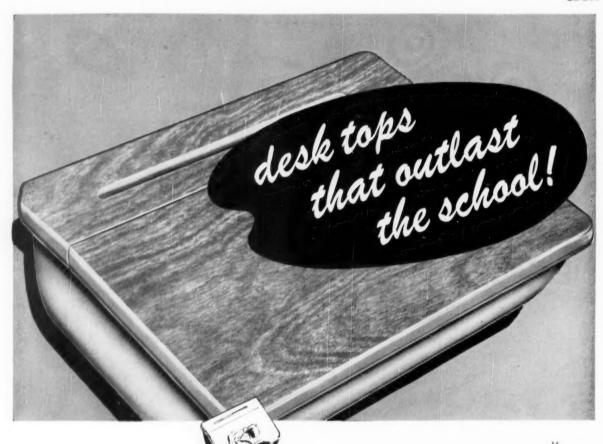
The School Executive



Planning the School Assembly —page 67



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VOLUME 76 NUMBER 3

CONTENTS

- EDITORIALS
- 5 Preview of December
- 7 The Past Is Prologue, by Walter D. Cocking
- 9 Keynotes-Comments on the Educational Scene
- GREEN SHEET
- 19 How Study Councils Tackle School Problems, by George E. Holloway, Jr.
- 21 Teachers' Salaries and the Cost of Living, by Harold F. Clark
- SCHOOLS IN ACTION
- Cultivate Your Own Back Yard of Potential Leaders, by Ira Freedman
- Use Positive Methods for Employing Teachers, by W. Earl Whitaker.
- Johnny Can-But He Needs Books, by George I. Brown
- 52 Can't We Modernize Our Methods of Education?, by George Nelson
- Keep Your Public School-Wise, by Thomas E. Smith
- 56 Teacher on Wheels, by Bernard S. Shore
- Industrial Arts Is Not Just an Extra, by Charles Quinlan
- Equipment for Multi-Use Rooms, by C. K. Leonard
- SCHOOL PLANT
- 11 School Plant News and Views
- Air-Conditioned Elementary School, by Caudill, Rowlett, Scott Associates
- PLANNING SECTION
- 67 Planning Auditorium Programs, a symposium
- Planning the Small-Group Assembly, by Harold E. Cripe 68
- 70 Students Plan Their Own, by P. O. Brunsvold
- 71 Programs with a Learning Function, by Harold M. Wilson
- 72 Objectives and Methods, by George E. Rabb
- 74 Getting All Students into the Act, by Robert L. Patton
- 76 A Window into Class Activities, by Ann L. Caldwell
- NEWS
- Spotlight-News of the Educational Field
- Washington Scene
- LUNCH 136 Lunchroom Planning Is Important, by James L. Creasy
- DEPARTMENTS
- 14 Pamphlets of Interest
- 174 Audio-Visual Aids

- 126 Conference Calendar
- 178 Manufacturers' Catalogs
- 134 Professional Library
- 182 New Textbooks
- 141 New Product News

- COVER
 - Preparation and production of "The Ugly Duckling" at Heathcote Elementary School, Scarsdale, New York.

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Preview of December

Of special import in the December School Executive will be an examination of the implications of automation for schools and school administration; this is a resumé of the discussions at the August meeting of the National Conference of Professors of Educational Administration. Every reader will be interested in these materials. The topic in the Green Sheet is closely related—it will deal with new programs for the preparation of school administrators. Daniel R. Davies of Teachers College, Columbia University, is its author. Other timely articles include Cyril Sargent's discussion of personnel utilization and school design, Mitchell Soso's paper on community use of school facilities, Channing Wagner's provocative statement on "What is a high school for?" and Gerald Steibel's article tracing the evolution of the philosophy of John Dewey. There are other articles as well as all of the regular features. We are proud of the issue and hope you will find it useful.

> Sincerely, Walter D. Cocking, editor

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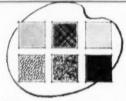
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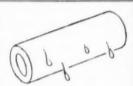
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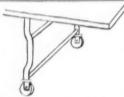
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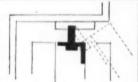
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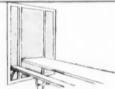
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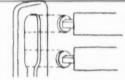
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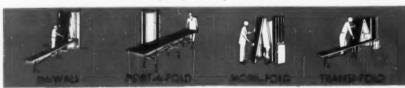
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AS I SEE IT

by toller & Cocking

The Past Is Prologue

W E ARE INCLINED to think that the present moment of time involves us in the greatest number and kinds of problems, the greatest advancements, and the biggest responsibilities that man has yet seen. We are also inclined to believe that the future will bring some relief and lessening of pressures.

I suspect that we all really know that neither implication is true. And yet we take delight in our present multitude of problems and in the thought that the worst will soon be over.

As I see it, the issues, the problems, the responsibilities and particularly the opportunities of the future will surely be numerous and exciting. Those of today and yesteryears, in retrospect, will pale into insignificance. As far as the future is concerned, the present and the past have value to the extent that we use them as spring-boards from which we leap into the unknown. We cannot live in the memories of the past; we must look forward with anticipation to the problems and issues of tomorrow. This must be our credo for living.

Questions we must ask are: Can we control and shape events, or will they shape and control us? Are we blocks to progress, or do we help to bring it about? Do we long for the past, or do we eagerly seek the mysteries and challenge of tomorrow?

Our living answers are the measures of our attitudes to the world we live in. Here we tell our age, not necessarily in the number of chronological years we have lived but rather in ideas, in vision and in courage. It seems to me that school administrators who would truly lead their fellows must always look forward.

As we view the present and study the fermenting processes going on in all phases of life, it must be concluded that we are in the midst of tremendous changes. These changes are inevitable, they will gain in rapidity and significance. We cannot hold them back if we would. Our task is to help shape and direct them. Our responsibility is to help guide the work of the school so that it keeps in adjustment with the forces and events of which it is a part. What a challenge and what a responsibility!

The rest of the free world is looking to the United States for enlightened leadership. Yesterday we were a small and weak nation. Today we are strong. Our policy of isolation has had to be supplanted with a policy of kinship and responsibility for what goes on in the world everywhere. Time and distance have been annihilated by the advancements of technology. Political developments have been no less striking.

In our own land, the physical frontier has disappeared. The distance from coast to coast is being spanned in less than five hours. One can talk with a person, and soon see him also, 3000 miles away by simply dialing his number. A large part of the drudgery of work has been eliminated by the development of machines. Disease has been attacked on many fronts; longevity is increasing. Better housing is rapidly eliminating the slums of yesterday. More people have more money to spend. And the dread of financial inability to support one's family now and in the future has been abolished through Social Security legislation. Recreational facilities have greatly increased and are used more and more.

The work day in office, factory and farm is steadily growing shorter while productivity increases by leaps and bounds. New sources of energy, new machines, new processes and refinements of the old are found everywhere. Indeed it is a great new world which unfolds before us. It is filled with boundless possibilities. Each development creates new needs, new challenges.

T IS IN THIS setting that the school finds itself. It is with this situation that educational leadership is confronted. The school of yesterday, good as it was, cannot possibly meet tomorrow's needs. It, too, must be readjusted, find new programs and processes, take on a changed character of organization, acquire new competencies.

The task of educational leadership is great. The job is enormous in size and complexity. The best manpower we can produce is none too good. More of our best young people must be attracted to careers as teachers and administrators. The educational leader needed for the future must have imagination, must be a doer of deeds, must have courage, must love people, must dedicate himself to the service of his fellowmen.

He must recognize that with all the material changes which are coming and will surely come, the most important developments have to do with people, with human values and with man's efforts to make himself more nearly in the image of his God. It is in this area, that the school administrator is privileged to work.

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A new look at federal support

THE PEOPLE of the United States, for many years, have considered the proposed policy of general financial support of public schools by the Federal Government. As of now, the issue either has been sidetracked or faced only partially. No clear-cut decision has ever been rendered.

True, the Federal Government is supporting several phases of the school program. There is some financial support of vocational education. There is a Federal School Lunch Program which has grown to sizable proportions. There is financial support both for plant and operation of schools in federally-impacted areas.

And yet, there is no clear acceptance of a role for the Federal Government in its concern for public education as a whole. The latest refusal to accept such a role was found in the recent 84th Congress' refusal to authorize federal financial aid for needed school construction.

It is important that the administration and the Congress register their views of the Federal Government's concern and responsibility for public education. This is a necessary first step. In deliberating it, the major issues should not be clouded by extraneous or side issues, such as where control of the schools would be placed or a hypothetical responsibility for private schools.

What must come first is an answer to the question, "Does the Federal Government have a responsibility for public education?" If the answer is "no," at least we know where education stands. If the answer is "yes," ways of implementing the accepted responsibility can be sought.

365 new "Winsteds" a year

WHEN THE FORCES of Nature were working overtime a year ago trying to wipe out the sturdy community of Winsted, Connecticut, and her sister communities down the Naugatuck River Valley, the equivalent of Winsted's population was being born throughout the United States on each day of the storm. In fact, approximately 365 new Winsteds could be assembled each year from all the births in the country.

The present population of 168 million exceeds the prognostications made a few years ago. With a new "Winsted" each day for the next ten years, the country will have approximately 190 million inhabitants by 1965 and another 3,650 more Winsteds, ten years later. Many risks are taken in predicting our population trends, but apparently, twenty years hence this nation will have added some 25 percent to its total number of inhabitants.

Naturally, this population will be widely distributed among our communities. New population centers will begin to appear. What does this mean for our schools and colleges? Boards of education may well be admonished to "Make No Little Plans." The proper facilities and well-prepared teachers must be ready for each boy and girl as he or she joins the new hordes who, in the two decades to come, will seek admission to America's schools and colleges. A big job is to be done, but the nation will meet the challenge.

TV for Atlanta's public schools

THE ATLANTA BOARD of Education has been granted a permit for a television station, to be owned and operated by the board. All school systems as well as all educational institutions in this area will cooperate in utilizing the facilities of this station.

The building which will accommodate the educational channel is in the beginning stage and broadcasting equipment is being purchased. The station should be in operation by September, 1957. Swinging into action immediately is a program to train a professional staff and one to instruct teachers how to incorporate TV into the curriculum most effectively. Some experimentation in teaching physics via television is expected during the coming school year.

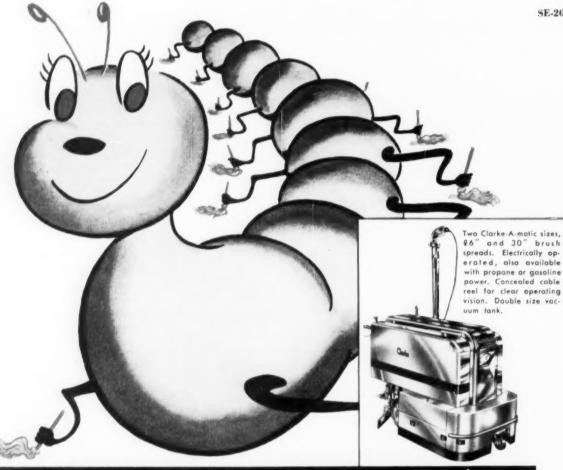
We believe that television is a powerful force in education; we intend to use it to aid and improve our instructional program. We can no longer overlook the fact that our children are receiving much of their education from television programs. Certainly we should see to it that they get the best education possible.

IRA JARRELL.
Superintendent of Schools
Atlanta, Georgia

Administrators need to read

THE SCHOOL ADMINISTRATOR is a busy person. Every waking hour has its problems and its demands. There never seems to be time enough. So the administrator has to choose what he will do and what he will not do. His choices concern me and I want to make a special plea. My plea is that every administrator choose to find time for serious reading. Reading is one of the important avenues to further growth and continuing efficiency. The ideas of others stimulate greater individual thinking. Others' ideas cause us to sprout ideas of our own.

Administrators should read professional magazines and books intensively. Equally, publications in other fields should be sought. We need to explore recorded ideas in whatever setting they appear. In the midst of the myriad problems of the moment, it is easy to conclude that reading can be put off, delayed for a time when we are less busy. Such a time will never come. If we do not find time for reading now, the chances are we never will.



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Flexibility Plus

Long-range flexibility is an essential feature of any unit which houses the Random Falls program. Its architect, John Lyon Reid, makes known that:

When youngsters first occupy their new home units on the Random Falls secondary school campus (see The School Executive, March, 1956), they will find a huge, bare room whose lone permanent feature is a narrow wall containing utility connections. Starting from this mainstay, the students will design work facilities to suit their own program.

Facilities will change as the program changes. Partitions will be set in place for one activity, only to be removed for another. Sometimes stoves, refrigerators and electric mixers will be found around the utility wall; at other times, lathes, saws and drills will be plugged into outlets.

The wings of the unit will be filled with desks for one learning situation and arranged as conference and committee rooms for another.

Hartford Projected to 2056

Challenging implications for educators lie in an assignment given senior architectural students at the Rhode Island School of Design last year, reported in detail in *Architectural Record*, July, 1956. The students were asked to plan the city of Hartford for living in the year 2056.

After studying about human beings in various biological and social terms, the students stretched their architectural imaginations a hundred years to create a city of the future. Their work was creative and fanciful, but leaves room to ponder how school children would be housed and taught in that far-off city fetched from the shades of Edward Bellamy.

Survey Uncovers Lighting Errors

Instances of sub-standard lighting in new schools were revealed in a school lighting survey carried on in

Mies van der Rohe's Great Room



Not a single structural column breaks the interior of the building that houses the Department of Architecture at the Illinois Institute of Technology, Chicago. Ludwig Mies van der Rohe, head of the Department of Architecture at the institute, designed this versatile plant. With the roof plate suspended from four overhead girders, it becomes an enormous room surrounded by glass and steel.

San Diego County, California. The Office of the San Diego County Superintendent, which conducted the study, using National Council on Schoolhouse Construction approved objectives as a comparative base, urged that the results be utilized by architects and school administrators to avoid repetition of known errors.

Data on the survey techniques and lighting objectives may be obtained from the Illuminating Engineering Society at 1860 Broadway, New York 23, and the National Council on Schoolhouse Construction at George Peabody College for Teachers, Nashville, Tenn.

Looking for Something?

Keeping track of instructional materials and assuring their most efficient use is a genuine problem in many school systems. Instructional materials centers offer one solution.

An instructional materials center is a place where all resource material and the equipment which teachers and pupils need to carry on their program are brought together into one central spot.

This space becomes a clearinghouse for materials. It provides a means of storing and accounting for equipment. It makes possible wide use of materials and promises prompt repair of broken-down articles. But best of all, it eases ruffled nerves by providing a one-stop center where materials can be obtained.

An article by Amo De Bernardis, beginning on page 93 in American School and University. 1956-57, Edition 28, presents detailed plans for instructional materials centers.

Recent Plant References

Planning Implications of Trilevel Organization in North York Township, Ontario explores all the facets of educational planning, from the initial population survey through the recommended program and plant. For further information, contact Engelhardt, Engelhardt, Leggett and Cornell, Educational Consultants, 221 West 57th Street, New York 19.

The Secondary School Plant details the design implications inherent in the broadening vista of secondary school programs. Steps in the planning process are outlined. A helpful bibliography is included in this pamphlet, available from the Supt. of Documents, U. S. Govt. Printing Office, Washington 25, D. C. for \$.45 per copy.

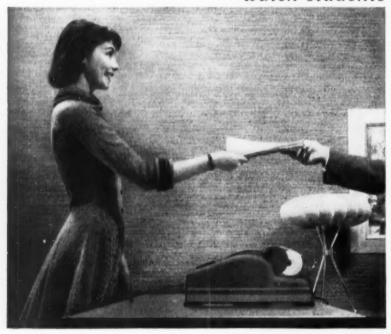
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Pamphiets of Interest

Teaching

Teaching in the Small Community
describes the distinctive problems
faced by teachers in small communities and offers practical help
for solving them. Department of
Rural Education, NEA. Price: \$3.

Discipline for Today's Children and Youth helps teachers and parents apply modern mental hygiene principles to discipline problem areas.

Association for Supervision and Curriculum Development, NEA.¹

Price: \$1.00 per copy.

Yale-Fairfield Study of Elementary Teaching is concerned with the improvement of instruction in elementary schools through adequate and competent staffing. Numerous problems are identified and form the bases for continuing study and experimentation by project associates. Yale-Fairfield Study Project, New Haven, Conn.

Educational Portfolio on Menstrual Hygiene is designed for classroom hygiene sessions, adult education classes and parent-teacher meetings. Personal Products Corp., Milltown, N. J. Free.

Administration

Twenty-five Years of Educational Research attempts to show the basic trends, indicate significant developments, assess present fundamental knowledge and suggest future emphasis of educational research. American Educational Research Association, NEA.¹ Price: \$1.50.

Pamphlets published by National Education Association departments may be abtained by writing to 1201 Sixteenth St., N. W., Washington 6, D. C.

An Experiment in Teaching Educational Administration describes an experiment in the preparation of school administrators designed "to test emerging concepts of teaching, often expressed as group-centered or student-centered instruction." Bulletin of the Bureau of School Service, Vol. XXVIII. No. 1. University of Kentucky.

The Intermediate Administrative School District in the United States reviews the history of this unit of educational management, details its present status in the reorganization movement and advocates maintaining the intermediate district in certain rural and urban areas, outlining its future organization and functions and ways and means of financing it. Bureau of Educational Research, Univ. of Illinois, Urbana. Price: \$2.00.

International Education

Education in Mexico, intended for persons concerned with inter-American education, is a comprehensive study offering the facts of cultural,



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social, political, economic and educational life in the country, information about schools at all levels, academic requirements and courses of study. Office of Education.² Price: \$.55.

Education in Taiwan presents those interested in international and comparative education with a brief picture of education there today, as well as historical material on its foundations. Office of Education.² Price: \$.20.

Some Solutions to Problems Related to the Teaching of Foreign Languages in Elementary Schools discusses the needs, premises of early introduction, realistic approaches to curriculum incorporation and lists sources of aid to those contemplating introducing a foreign language program. Metropolitan School Study Council, 525 West 120th St., New York 27, N. Y. Price: \$.85.

Teacher Exchange Opportunities 1957-58 is a guide for those interested in participating in the international educational program. Office of Education.¹

Open Doors is a report of five surveys conducted among foreign students, doctors and faculty members in the United States and U.S. students and faculty members abroad. Institute of International Education, 1 East 67th St., New York 21, N.Y.

Citizens and Citizenship

Citizens at Work is a description of lay participation in the Cleveland Heights public school system. Associated Public School Systems, Teachers College, N.Y. Price: \$1.

Citizenship—Your Schools in Action is a survey of the citizenship training program in the Pennsbury, Pa., Schools. Pennsbury Joint School Board, Fallsington, Pa.

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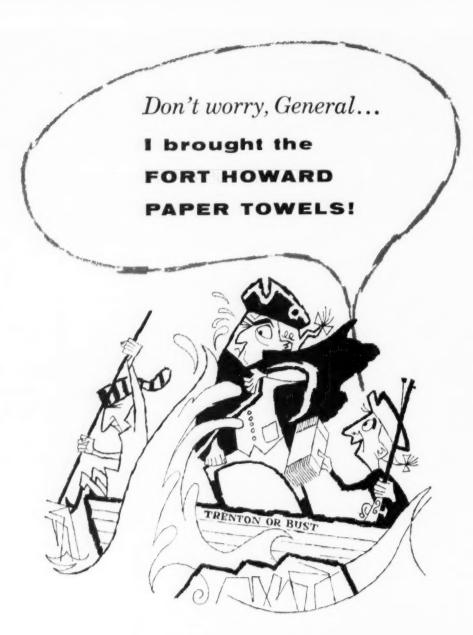
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How Study Councils Tackle School Problems

A report on the activities and accomplishments of groups formed to study and find solutions for common educational problems

by GEORGE E. HOLLOWAY, JR.

Executive Secretary, Western New York School Study Council, and Associate Professor of Education, The University of Buffalo, New York

TODAY, SCHOOLS nation-wide are facing similar problems—how to improve methods for teaching the 3 R's, how to solve the drop-out problem, how to handle the gifted child, how to utilize educational television, to list but a few. Some schools are tackling these issues unaided; others are pooling their mental and financial resources to work cooperatively through an organization called "study council."

Study councils are formed with the express purpose of aiding school districts solve their common educational problems. The councils may consist of several homogeneous schools within a suburb of a large city or may embrace schools from as many as six states. Usually their head-quarters are in a local college or university.

The first study council came into existence in 1942 through the efforts of 28 school superintendents from New York and New Jersey under the guidance of Paul R. Mort of Teachers College, Columbia University. A similar group of 73 school districts from New England formed at Harvard University in 1945 under the leadership of the late Alfred D. Simpson, a professor of education there.

By 1950, when the first national conference of study council leaders was held at Syracuse University, 17 councils were in existence with 11 represented at the meeting.

Approximately 35 councils from Maine to

Texas are in operation today. In New York State, where the movement began, there are ten: eight regional councils, another for the central schools of the state and the largest, which embraces all types of schools throughout the country, has its headquarters at Teachers College.

Since each council serves the needs of its local school area, there is no standard type of organization. A board of directors, one third of whom are selected each year by representatives of the school districts concerned, governs most of the councils. Board members for some groups are superintendents or chief school officers, while in others, representatives of the administrative staff, school board, faculty of the public schools and colleges or universities within the area, constitute the membership. Some councils have constitutions; others have an informal system with no specific set of rules.

The council directors or the executive committee determine policies. They are charged with the responsibility of preparing a budget and submitting a program of activities for approval by member schools at the annual meeting.

An executive secretary, generally a member of the faculty of the sponsoring institution, is the administrative officer. He is usually provided with a clerical staff who assist in handling council business, preparing publications and arranging meetings, and with research assistants who aid various study committees in preparing project reports. Some executive secretaries devote full time to council affairs; others carry partial or full teaching loads in addition to their council duties.

Consultants for study groups and directors of

Next Month: New Preparation Programs for School Administrators—Daniel D. Davies

No. 145. Reprints in quantities of ten or more may be purchased from The School Executive, 470 Fourth Avenue, New York 16, New York. 10 copies for 1 months \$1.00, for 12 months: \$10.00; 25 copies for 1 months: \$2.00, for 12 months: \$20.00; 50 copies for 1 months: \$3.00, for 12 months: \$30.00; 100 copies for 1 months: \$5.00, for 12 months: \$50.00.

research projects are drawn from staffs of the sponsoring institution and of other universities or colleges within the area served by the council.

The studies fall into one of three categories:

- 1. specific problems facing a number of schools in the council:
- 2. research in a realm where little or no information is available;
- 3. studies deliberately selected to acquaint participants with the work accomplished in a particular field.

All three types of studies are intended to encourage teachers, administrators, board members, as well as lay personnel, to:

- -work together
- -become familiar with research principles
- -evaluate what they are doing.

Initially, most of the council activities were conducted by the administrative officers of the schools involved. As the councils have developed, member schools have found it necessary to provide substitutes for certain teachers to allow them time away from their regular assignments to study problems with members of other school systems. School boards had been reluctant to provide funds for these substitutes, but with increased council development, they are more willing to provide the funds which permit their teachers to share in these experiences.

Most school study councils have a regular house organ distributed to member schools four to eight times a year. These publications aim to keep members aware of "best practices" as they are developed by schools within the council or by schools of other councils; of future programs and meeting dates of study groups; and of reports on studies of general interest.

Studies on Handwriting Today, School Equipment, Libraries, Guides for Evaluating School Buildings, The Custodian and his Job, The New



Results of investigations into area-wide educational problems made by study council members are often published by them, as an aid to others who may have like problems.

School Board Member, Guide for Developing Handbooks, Testing Procedures and Curriculum Problems have been issued as reports, either embodied in the regular council publication or distributed through special printings.

The average study council determines its program by opinionnaires distributed to participating schools, requesting a list of topics and problems concerning their area for which they believe study groups should be formed. Results are tabulated and topics in general demand are then considered for study during the following year. Some subjects continue to be worked on by committees for as long as five years; others are completed within a month or two. Certain issues lend themselves to conferences rather than group study, and are conducted as institutes.

Council activities cover a wide field. One, located in the Washington, D.C. area, has initiated a project in cooperation with the Smithsonian Institute to prepare a guide to assist teachers who wish to visit there with their students.

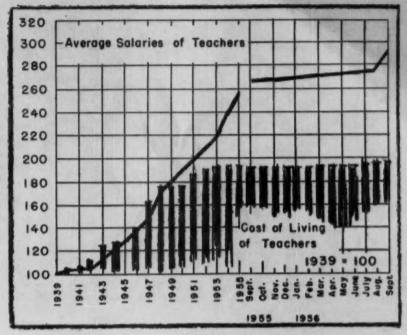
At least eight of the councils prepare an annual report on teachers' salaries and financial data of the schools in the area they serve. Several have committees working on industrial-school relationships; one has been conducting a series of meetings designed to promote closer articulation between the schools. Another has conducted a study on promotion policies; still another, on promising practices observed in secondary schools in its area.

Aided by school, sponsor and state

Support for school study council activities comes from three sources. First, member schools contribute—either on the basis of \$.10 per child with a minimum fee of \$50 to \$100 and a maximum of \$500 to \$700, or on the basis of the number of professional employees within the several schools.

The second means of income is from the sponsoring institution upon which most of the councils depend heavily for the provision of office space, secretarial assistance and services of one or more staff members. The third source, in some states, is the State Department of Education or state institutions which support the activities of the study councils, either by supplying direct funds or by allocating personnel.

The growth of the study council movement has not been rapid, but it has been steady. School districts which are members of study councils should seek out further opportunities to work with other member schools. Districts which have not yet considered the cooperative program provided by school study councils will do well to join existing groups or assist in forming new ones.



September saw teachers' average wages rise to an index of 288.4, primarily due to the increment made annually at this time of year until maximum salary is reached. However, with the cost of living mounting to an index of 197.3, the picture is not entirely favorable.

Teachers' Salaries and the Cost of Living

by HAROLD F. CLARK

Economic Analyst Teachers College, Columbia University

THE REAL WAGES of teachers mounted sharply during September. The index of teachers' real wages in September was 146.1 (1989=100). In August the index was 189.7.

Dollar wages increase, but . . .

At this time of year teachers' dollar wages usually increase. Real wages and even the relative wages are likely to show corresponding gains during some years. The swelled figures are evidenced because of teachers' annual September increment whereas salary raises in other fields occur at almost any time of the year. So, the line for teachers on wage comparison charts normally is reduced substantially during the rest of the school year.

The increase in the dollar wages of teachers

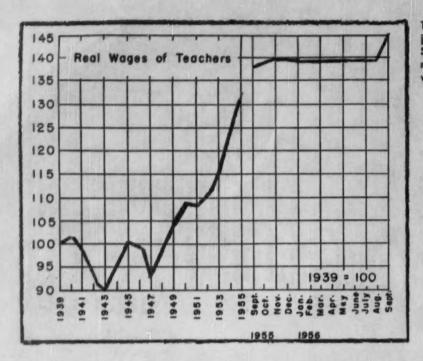
during the past year was about \$200. Their real wages increased about 1.5 percent. Teachers' relative wages rose only slightly.

A glance at a few wage and price factors will concretize the above results as well as teachers' cost of living problems. The recent widespread increase in wages in industry has caused many price rises. The cost of living for many months had been relatively stable. Any increase in dollar wages of teachers showed up in higher real wages.

During recent months the cost of living for teachers has climbed somewhat more than 3 percent. Wages are up; prices are following. Although the general impression persists that this will not lead to a continued spiral of inflation, it is too early to be certain.

Raise in farm prices ups cost of living

Another important factor to consider in the cost of living situation is the recent upward swing in farm prices. For several years the nation has seen a fairly consistent downward trend in farm



The index of real wages for teachers jumped to 146.1 during the month of September. Had the cost of living remained as it was, the higher real wage figures would be more valid.

prices which, of course, has tended to hold down food cost increases. In fact, the low wholesale farm prices have largely canceled out any increase in the cost of processing and distributing food. Retail food prices, as a result, had been reasonably stable.

If farm prices should continue to rise, as the trend indicates, with food processing costs also mounting, market prices will show increases more nearly comparable with those of other materials. The net effect would be a further cost of living elevation.

Relative wages remain unfavorable

However, scanning the profession's plight, the most serious problem continues to be teachers' wages in relation to other wages. The relative wages of teachers have not been able to make any substantial improvement. With the passing of each year, it becomes less and less likely that teachers' earnings will return to a point of favorable comparison with other salaries. If this persists, the average quality of people in the teaching profession will lower.

Determine desired ability level first

Wise communities might better discover what level of ability they demand of the teaching profession, than tackle the salary question directly. Though teachers' wages remain somewhat below the average of all wages, to a great many people the salaries seem reasonable. To the tens of millions of people who earn even less than teachers, the wages must seem more than adequate.

But, if community members know that they

want the best people to instruct their children, then they must understand that a good salary is an attractive lure. Once the long-range effect of an unfavorable wage picture is realized, the decision, in all likelihood, would be to work out a salary schedule appealing enough to heighten the quality of those people who choose the teaching profession as their lifetime careers.

To lead a community to this result, may well be the most important task in relation to teachers' salaries confronting us in the period ahead.

Once a community has decided it wants the most qualified teachers staffing its schools, then the salary question can be tackled directly.

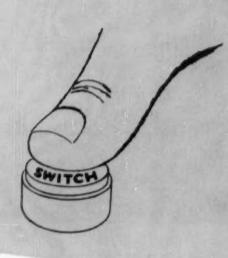


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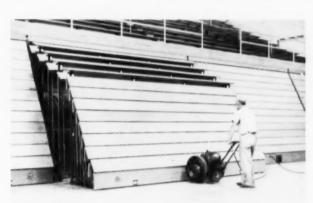
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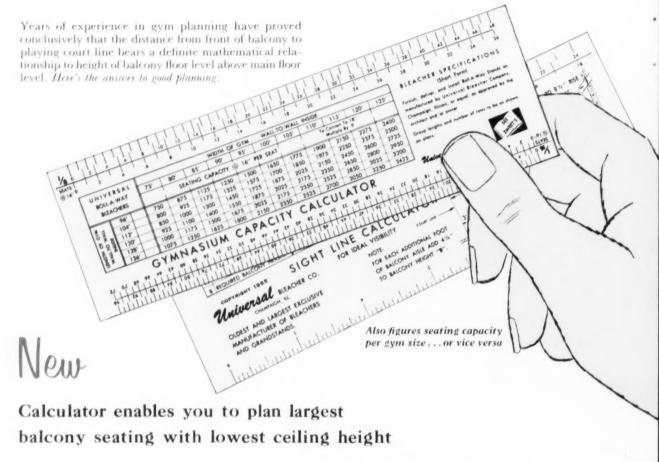


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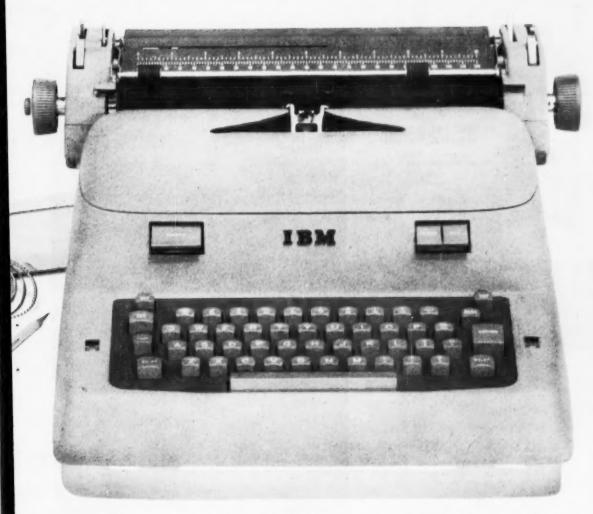


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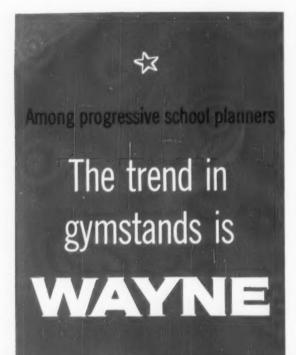
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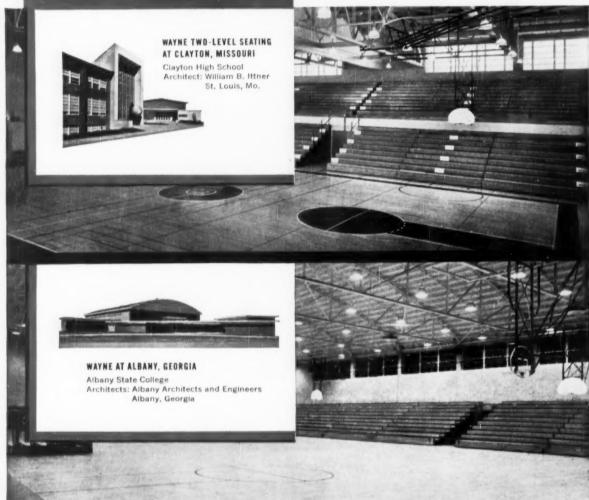
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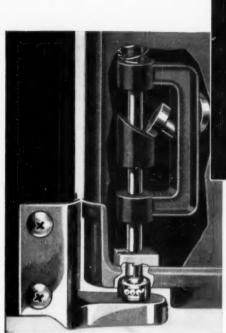
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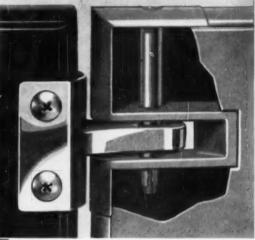






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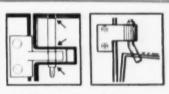
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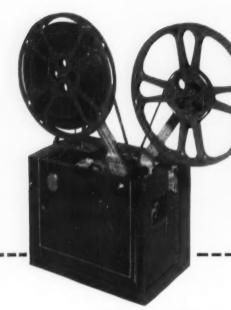
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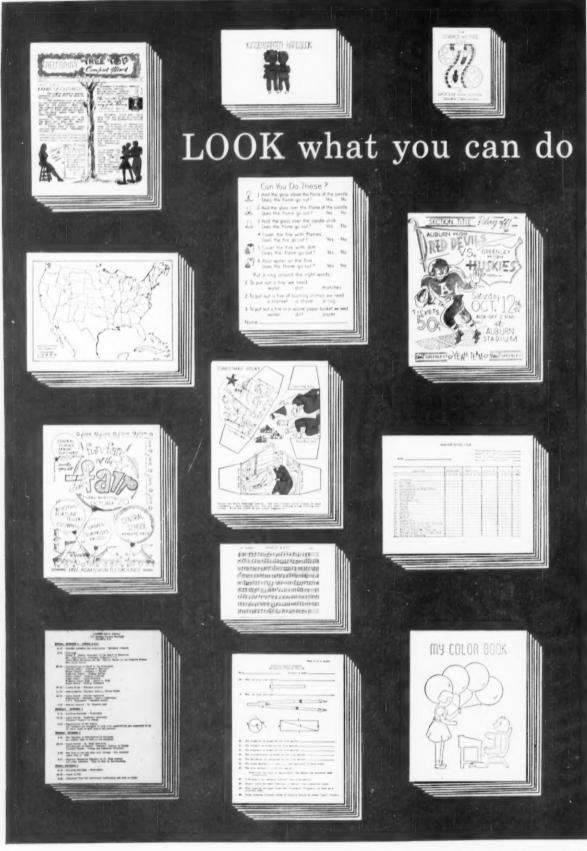


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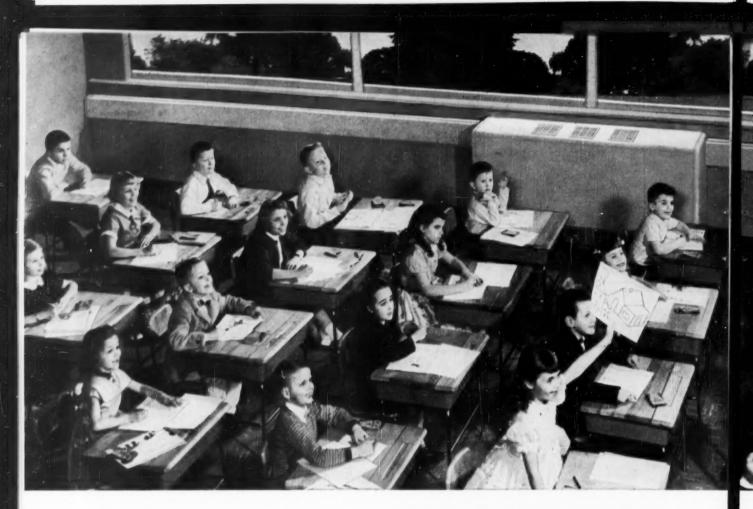
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No sleepy corners...no stale air spots...no drafts! The Trane Unit Ventilator with Kinetic Barrier Action stops drafts where they start—along outside windows and walls. A rising wall of warmed and tempered air is forced gently upward from the room-width extensions shown in photo at left. Air is evenly distributed throughout the entire classroom. And, unlike other systems, the Trane Kinetic Barrier provides continuous air movement. Every pupil in the room—no matter where he is seated—has a "fresh air seat"... an ideal climate for learning, every minute of the day!

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Suggestion to the wise, green-thumb administrator:

Cultivate Your Own Back Yard of Potential Leaders

by IRA FREEDMAN

RAISING HOME-GROWN LEADERS in the public schools represents conditions similar to gardening. Here the young plants, the prospective leaders, are selected and fed the nutriments that aid maturation and growth: helpful guidance, study groups and active participation in a multitude of school affairs.

One school system which has successfully home-grown some of its leaders is the Schenectady, New York, Public Schools which started its Apprenticeship Program in Educational Leadership in 1944.

At that time, several forthcoming vacancies in school principalships prompted school officials to map out a training program for prospective leaders. Help was enlisted from teachers, administrators and college con-

sultants and a group of criteria was cooperatively set up. Following board approval, school officials reviewed credentials and qualifications of interested teacher-applicants and set up interviews with them.

The central administrative staff, consisting of the superintendent, his assistants and several directors, visited with each applicant to learn his views on education and the strength of his purposes. Several trainees were then selected. After a period of varied experiences calculated to prepare the applicant for a position of leadership, the trainees received appointments as principals.

Today, after twelve successful years, the general program is substantially the same. It has provided Schenectady Schools with its super-

Mr. Freedman is a leadership apprentice in the Schenectady, New York, Public Schools' training program he describes here.



A Schenectady leadership apprentice in art gains his supervisory experience by working with classroom teachers in improving their art instruction.

intendent, his assistant, the two assistant superintendents, a high school vice-principal, eleven elementary and two junior high principals, the director of research and the audio-visual director.

The fifteen apprentices now on the program are participating in a wide range of activities. In addition to three performing as acting principals and one as a principal's helper, trainees are working in technical high school education, physical education, family life education, guidance, publicity, vocational work and art. One woman is a demonstration teacher, while another is an elementary resource teacher.

Let us glance at the schedules of several Schenectady apprentices and follow them through their day.

Information officer

A high school English instructor who teaches half a day is assigned to the public information office and is now at work producing a sound movie in color showing how handwriting is taught. He also writes and has published a periodic news pamphlet which informs local citizens about construction progress on

Schenectady's new \$5-million comprehensive high school.

His colleague, under the supervision of the superintendent's assistant, operates the system's public information office. This office acts as a clearing house for all school news and maintains daily contact with both local newspapers. This trainee writes occasional magazine articles and brochure in addition to broadcasting a weekly school news program over a local radio station. He serves as chairman of the junior high school curriculum council and acts as liason between his school system and an area school study council. His work is acquainting him with the personnel and workings of a school system on all levels.

One of the apprentices in educational leadership, who is serving her apprenticeship as a resource teacher, is helping fifth-grade youngsters who are having reading difficulties. She is also using her twenty years of teaching background to assist the new probationary teachers who need help in organizing groups for teaching and in leading youngsters to set up criteria for self-government. She has taken classes on field trips and

has substituted for the principal during his absence.

This apprentice also served as a consultant during an education conference in a neighboring school system and helped organize colored slides and text for an illustrated lecture on how reading is taught. She participated in a number of panel discussions for new teacher orientation and wrote a series of newspaper releases during American Education Week.

Several apprentices participate in a series of meetings with heads of various school departments. Purpose: to familiarize these future leaders with the different phases of the educational program such as library service, audio-visual, attendance, research and child accounting and testing. Other areas looked into are child guidance, maintenance and custodial service, special classes and the practice-teacher program.

Each week four apprentices meet with the assistant superintendent in charge of secondary program to evaluate their activities and suggest further educational experiences they consider worthwhile.

Each trainee also has an assignment to visit schools on levels different from the one in which he regularly works. Observing classes and visiting with other school personnel has proved to be one more stone to widen the base in the trainee's foundation of leadership training.

Assists principal

Another apprentice, a young man of five year's experience, is acquiring practical know-how in administration by assisting the principal of a 900-pupil junior high school. Several areas have been delegated to this man, including attendance and discipline cases. He also has charge of the noon-hour program which involves supervision of the cafeteria, corridors, pupil monitors and activities such as dances and movies. Assembly programs have also been delegated to him and he guides the student committee which chooses programs for the year.

At the beginning of the year he assisted the principal in making out the schedule, and he answers correspondence and inquiries from other school systems. This trainee also has the highly interesting task of working cooperatively with the Youth Aid Bureau of the Schenectady Police Department in solving delinquency problems.

He is currently engaged in a follow-up of a junior high reading program by meeting with teachers, helping with the scheduling of new classes, regrouping and obtaining instructional materials. He also heads the school's Competent Child Committee, and under his leadership the group is seeking ways to enlarge and improve the program currently being offered to Schenectady's gifted children.

Art supervisor

A young man who has had eight years' teaching experience on elementary, junior high and senior high levels meshed gears with the training program by being relieved of several classes so as to have time for activities of a supervisory nature. Teaching art in grades K-6 in three schools is his main task. He is gaining supervisory experience by consulting with and assisting teachers in improving their art instruction. He helps them develop projects they have begun and makes suggestions for new supplementary activities.

Some excellent administrative experience was afforded him when he planned and set up an art workshop for 47 local teachers. He planned the area to be covered and made detailed schedules for distribution because college credit was to be granted to the participants. He also took part in the actual instruction and maintained personal contact with the cooperating college while keeping books and records related to the course. His other experiences have included writing an article for an educational art publication and representing the Schenectady School system at an art conference in Cleveland.

It is evident that Schenectady's leadership-training program is not a uniform "course;" it varies from person to person. Indeed it might be said that each apprentice goes through a custom-made set of ex-

periences which are suited to his needs and interests. A glance at the programs set up for the trainees of several years ago shows the value of variety and individuality. These former trainees have since moved up to positions of responsibility and have done excellently.

One such person now heads one of the city's newest elementary schools and is looked up to for her capable leadership and forwardlooking administration. During her apprenticeship, she was responsible for the supervision and guidance of all probationary teachers in a particular building, was granted release time for out-of-city and intra-city visitation, participated in a wide variety of system committees and study councils and was responsible for certain PTA and parent study group activities. In addition, she was given direct responsibility for the administration of the school in the absence of the principal.

Teachers chose their own

A rather unique approach was used at the time of her appointment to her present job. She was selected by the faculty of a building where a vacancy existed. The teachers worked with consultants to acquaint themselves with the criteria for a good administrator, considered the various applicants, agreed on Miss X as their new principal and made appropriate recommendations to the board of education.

This method of selection by faculty was used in another new school and there, too, the results have been most encouraging. The highly competent young woman in this situation had wide experience as a resource teacher before joining the training group. She had written bulletins, attended conventions, spoken to citizen and parent groups and sat in on education meetings in addition to assisting newcomers to the system. After becoming an apprentice she worked in the administration building and then went to an on-the-job administrative training situation. A principal with many years of practical know-how became her mentor and acquainted her with such school matters as scheduling, needs of the

school building and its personnel, responsibilities of teachers on committees and the social forces with which principals must reckon.

Another successful principal also worked with probationary instructors and was active on committees during her training period. She made special efforts to become acquainted with the way principals worked in the various schools and took part in the local program involving high school and college cadets. She assisted with radio, television and movie work as well as a community survey, and took part in interpreting Schenectady's educational program to both teacher groups and the public.

A junior high school teacher who is currently on the training program as a regular teacher and part-time testing worker says of the Leadership Training Program: "I cannot praise it highly enough. The whole educational program has become more meaningful to me as I have seen it in toto, and the work of each individual department has become more important as I have seen what each is striving for and what each accomplishes. Believe me when I say I have acquired tremendous respect for all of our personnel. I feel that this year of apprenticeship has been a most enriching one."



Another apprentice in the leadership program writes and broadcasts weekly radio reports from the public schools.

Use Positive Methods for Employing Teachers

by W. EARL WHITAKER

Administrators are only too well aware of the teacher shortage which now exists and the difficulties school districts are facing in filling their teacher needs. With enrollments still spiraling upwards, the shortage promises to become even more serious.

Those who are charged with filling vacancies must find ways to attract available teachers to their districts.

Those responsible for teacher employment in the Redwood City, California, School District believe that the employment methods used will determine the number of applications to be received and, more important, will determine the number who will be interested in accepting positions if they are offered. A positive employment program has therefore been used which we believe not only attracts applicants but also benefits the profession in general.

Any program must be rooted in a basic philosophy if it is to be successful. A philosophy of employment compatible with good employment procedures and good personnel practices is the first requirement. What will best serve the district? What will benefit the profession?

The Redwood City School District bases its employment program on these two beliefs: all applicants are performing a service to the district when they apply; and all applicants are entitled to straightforward and honest treatment.

More applicants the better

Each application that is filed adds to the number from which selections can be made and, hence, makes choices more selective. The candidates, therefore, are performing a real service to the district and are entitled to consideration even though it may not be possible to place them.

As the applicant and the administrator share their experiences, their educational philosophy and their knowledge of teaching methods, the ability of the personnel officer to serve his district is enhanced.

Each candidate pays a compliment to the district when he applies. Each one probably has some opinion of the district which has led him to inquire or file an application. Surely every administrator should help the applicant maintain this favorable opinion.

Through contacts made with those seeking employment, the administrator has opportunities to represent the teaching profession in a way which may add to its prestige. If he succeeds in this, the profession has been strengthened.

Give clear picture

Each applicant should be extended courteous treatment and be considered a guest. The qualifications important to the district and the specific positions for which candidates are being considered should be made clear. The procedure used for selection should be explained. Any person seeking employment realizes that the district will gather information to support his application. Of no lesser importance is the right of the candidate to be told honestly about such things as salary, facilities, philosophy and the personnel practices of the district. He should also be encouraged to ask questions about any phase of the program he wishes to know.

Bulletin for applicants

The employment procedures followed by the Redwood City District correlate with this basic philosophy.

A bulletin addressed to teacher applicants is made available to every candidate and contains sections covering the following:

1. A statement of appreciation to the applicant for the interest shown and for taking time to apply.

 A statement clearly listing the qualifications preferred as to training, certification, experience and special abilities.

3. A list of the steps which are taken by the district to determine which applications will be given more detailed and serious consideration.

4. A clear explanation of the various kinds of information which will be used in making teacher selections: confidential references, interviews, information given on the application form, positions to be filled and their requirements and the applicant's own

Mr. Whitaker is assistant superintendent of the Redwod City, California, Elementary School District.

qualifications as compared with others' provide the hiring basis.

5. A statement explaining the purpose of and the points which are covered in the interview.

6. The suggestion that the applicant ask questions about the district and examples of types of information in which he may be interested.

7. A final statement of appreciation indicating the contribution each applicant makes to the district.

Inform placement offices

Placement offices are informed of the district's need for teachers. It is made clear to these offices that the district is primarily interested in teachers who have expressed a desire to locate in the Redwood City area. Many districts in close proximity to the colleges depend on the graduates to fill their personnel needs. Care is taken, therefore, not to increase the employment problems of these districts by urging the students in those areas to leave.

Brochures are also sent to the placement offices which give information about the district, its size, location, the climate of the area and educational and other advantages. A salary schedule is also on file in the placement office for reference.

Time and expense for the applicants can be saved if an interviewing schedule can be arranged on the campus. Several people can be interviewed, thus making a trip to the district unnecessary unless the candidate is particularly interested. It is, therefore, the policy to send representatives of the district to as many colleges as possible for interviewing purposes. Placement offices are first contacted to determine interest, and a date for interviewing is then arranged if enough candidates are interested. Contacts are usually limited to colleges located near enough to Redwood City to make possible a later visit by the applicant if he desires.

Two-way fact finding

The interview is a two-way communication in which the applicant learns about the district and the employer learns about the applicant. Here is a real opportunity to become acquainted so that both will have a basis for making a decision regarding employent—to offer or to accept.

Right at the beginning, the purpose of the interview is made clear. The district is interested in learning more about the candidate's knowledge of teaching methods, educational philosophy and attitude toward the profession in general and children in particular. The applicant is interested in knowing more about the people with and for whom he will be working, district policies, salary and personnel practices.

The final selection

Any applicant is interested in knowing whether his qualifications are such as will be given serious consideration. The answer is given to him as is compatible with the interest of the district. If it is obvious that serious consideration cannot be given, the applicant is so informed. If the decision must be deferred to provide more selectivity the applicant is informed of the delay and even encouraged, perhaps, to apply elsewhere as well in order that he may not be handicapped if not chosen. He is encouraged to keep in touch with the district regarding the progress of his application so that he will be in a better position to make decisions regarding other

In all steps taken in reaching decisions, honesty prevails and all information, with the exception of that classed as confidential, is given to the applicant. It is felt that there is nothing professional about keeping candidates guessing and making it difficult for them to find positions. Any honest method of selection should be open to inspection.

In summary, the Redwood City School District believes if those responsible for employment are to benefit the profession, they must be professional as they fulfill this obligation.

Remember tomorrow

Applicants are considered important—which they are—and are treated with respect. They are honestly informed of the procedures followed in the placement of teachers and are informed of decisions as early as possible.

The specific employment steps taken, it is believed, are based upon a sound professional philosophy. We think that those responsible for employment are in a position to build up or tear down the profession. Whether there is an over- or undersupply of teachers, it is felt that the district cannot afford to use any methods which are not based on the golden rule.

All contacts with all applicants, it is hoped, will leave favorable impressions of the district, even with those who may be rejected. For in these uncertain days of teacher shortage, the applicant rejected today may be the one sought after tomorrow.

Tell your teacher candidates:

the qualifications—training, certification, experience—you prefer

on what basis your selections will be made

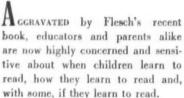
whether or not their applications will get serious consideration

the "whole truth" about salaries, facilities and personnel practices

About one elementary school in ten has a central library; one in 200 has a full-time librarian. Is this the way we reward our children once they have learned how to read?

Johnny Can— But He Needs Books

by GEORGE I. BROWN



No one questions the vital importance of reading in the elementary school curriculum. In fact, the oft-repeated statements about this importance have soared to that murky "ever-ever land" of the educational cliché, and so are sometimes too much with us.

Although it is admitted there is still room for improvement, research does seem to show that generally we are doing a better job of teaching youngsters to read. Let us assume, then, that at varying stages in reading development our children can read. What then do the schools provide for these children to read once they have learned how?

While a centralized school library can serve many important functions in the modern elementary school, its most logical one is to provide books and encourage children to read them. These reading experiences, in turn, become part of the development of better and better readers.

However, what is essentially basic is that once children can read, this library provides something for them to read.

Aside from basal and supplementary readers, the paucity of reading materials in the average classroom is appalling. And what is there is usually due to the efforts of the teacher, who has plenty to do without hauling books to and from the public library.

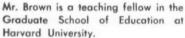
But what of the public library? Why shouldn't the children get the books there? One possible answer is simply that children are as human as adults! They do not bother for the same reasons that people shop at stores on one side of the street rather than cross over; or closer to the point, that people who might wish they had something "good" to read instead flip a television knob or pick up a magazine at some convenient newstand rather than journey to the free public library across town.

On the other hand, when there is a good library one or two doors down the hall and the children can find a competent and friendly librarian there, one who is eager to help, then they quickly adopt the library habit, going willingly and frequently to get "that" book.

Let it be emphasized that this library must have a good librarian, preferably a full-time one. Nothing will insure the deadness and non-use of a library as much as the lack of a librarian. She is, here, the catalytic agent in the intellectual process.

As for books in the home, fortunate and rare indeed is the child whose parents provide him with enough books, books that he wants to read. Most parents cannot afford them.

To make an analogy about what is happening today with our children's reading, let us use as an example the training of a jet pilot. Suppose, after the time, effort and money spent in his training, we gave him a horse and wagon and said, "Here-now use your training to drive this wagon!" This is ridiculous, of course. But it is just as absurd to spend the time, effort and money in the extremely complex process of teaching a child to read and then as a community and a culture offer





Nattingham Elem. School, Arlington County, Md.

him Superman Comics and television advertising as the culminating achievement and reward of that process.

Professional educators and administrators nearly all agree that libraries are important in the elementary school. They have become accepted as the "heart" of the elementary school. Some administrators attempt to put this verbalism into practice and plan adequate space in their new buildings for the library.

First space to go

But what happens when the dark cloud of "unexpected" enrollment looms? The very first room to be seized for the much-needed extra classroom space is the library. What then has happened to this "heart" that is so often talked about? It could be said that some educational surgery has been performed.

Is this efficient planning and administration?

The New England School Development Council in their excellent publication Every School Needs A Library recommended a minimum perpupil expenditure for a library of \$2.50 for a building of under 500 pupils, \$1.75 if over 500. Compared to a total per-pupil expenditure this will seem a small amount, if we can appreciate the benefits that may be provided by a well-staffed and well-

stocked elementary school library.

It is not our purpose here to elaborate on these many benefits. Many other articles and books have composently and convincingly covered the area. The reader is urged to examine some of these if he is not already acquainted with their content. (One especially significant and pertinent discussion may be found in Chapter 18 of Elementary School Administration and Supervision by Elsbree and McNally.)

How many of our elementary schools still have their "hearts"? Elsbree and McNally state that in the United States in 1935, a depression year, "less than one in ten had centralized libraries in the school." One would expect to find the situation improved since these hungry times. However, there are indications that it has not.

The New England School Development Council tabulated the responses to a questionnaire sent to their member school districts in March, 1952. The members of this Council consist of some of the more forward-looking school districts in New England, and, consequently, the results of this questionnaire should be at least typical if not better than that for the average New England school district. Around 1500 questionnaires were distributed.

The results show less than 9 per-

cent of the elementary schools had centralized libraries, about 3 percent had part-time librarians, and only around one-half of 1 percent employed full-time librarians.

The results of this and other surveys indicate that there is indeed an unfortunate inconsistency between what is praised and what is practiced with regard to elementary school libraries.

In denying the need for these libraries there lies the danger of penny wisdom. We must not be like the opera devotee who spent a large sum for boat passage to Italy with the purpose of seeing the La Scala opera and then refused to buy a ticket because he thought the price of admission too high. We must not travel the long hard road up to the mansion of our goals and then find we never bothered to buy a key for the door.

It has often been said that the lower down in grade level one goes the more important becomes the teacher's task. It is the thesis of this article that similar values should be applied to libraries. Elementary school libraries may be as important as the great university libraries.

Certainly when related to the total potential effect elementary school libraries could have on the future, they do not deserve the neglect presently accorded them. an industrialist asks:

Can't We Modernize Our Method of Education?

We're decades behind industry in applying massproduction tools to a much needed product . . . we've successfully used modern communication tools for training—why not test them in *education*

by GEORGE NELSON

A COUPLE OF YEARS AGO I was standing on a station platform in Stuttgart, waiting for a train. Also waiting were some two or three dozen GIS, each seated comfortably on his suitcase, each absorbed in a book. Every book—I checked, and there were no exceptions—was a comic.

At the time I was shocked at this picture of the drafted defenders of our ideals and culture. Later on, recollection of the scene created an entirely different impression: they all had shoes and, with the aid of simple cartoons, they were able to read. We, the richest and most advanced nation in existence, had achieved this. You cannot say as much for the majority of the world's population.

I tell this because I have a deep distrust of discussions of education that fail to find a connection with the world as it is. I have listened to too many "educators" whose concept of education is a carefully-winnowed selection of unusable facts. I happen to believe that the knowledge of languages — including Latin — is a good thing, and that if it entertains a man to know the date of the Council of Nicea, it does neither him nor his neighbors any harm.

But I also happen to believe that the problem of education is always a contemporary problem and that if it is to be solved at all it must be solved in contemporary terms. Speaking of it in contemporary terms, I can tell you what it is not: the problem is no longer one of piling up information. My 10-year-old son and the same holds for his playmates—contains ten times more information than did Erasmus in his prime. But 10-year-olds are not educated people any more than were the soldiers on the railway platform.

Up until fairly recently, our society has not been especially interested in education. The main focus of interest has been training, which, as I see it, is a procedure for developing special competence. Thus one might describe the first ten grades of school as training primarily-in the recognition and use of words, the manipulation of numbers, the memorization of useful facts. The college student who begins professional specialization in his sophomore year is clearly concentrating on training. This is one of the things that so frustrates faculties in the humanities.

Now demand education

There is nothing wrong with training. Every society needs skills, and our own demands in this respect are enormous. During the period of our growth we had a desperate need for trained people in order to establish a technological base for industry and agriculture, and that need continues. But along with this is developing, for the first time in our history, a mass demand for education.

The aim of education, as far as I can make out, is no less than the total integration of a man's capacities. It has little to do with the particular facts or skills at his disposal. That is why we can still regard Eras-

Mr. Nelson heads an industrial design firm in New York City. This article originally appeared in the Phillips Academy Bulletin, from which it is adapted. mus as a model of the educated man; what establishes his position was his ability to take such knowledge as his time offered and make from it a new picture of the world.

The educated man collects information primarily for the purpose of establishing new relationships. He also has some understanding of who he is and how he relates to society. He understands the meaning of tradition, relating himself to the past rather than worshipping it. His equipment includes a concept of morality. His orientation is essentially creative. Finally, his picture of society is the result of critical evaluation, which takes courage since he may find himself in opposition to it.

All this adds up to quite an order, and I suspect that existing educational procedures are not capable of handling it. The reason: no handicraft activity (teaching is a handicraft activity) can function efficiently in an industrial society. If there is any truth at all in this view, then it is high time we began to experiment.

What interests me about this problem, since my work is mainly with industry, is that manufacturing once had it too. To set up an absurd but perhaps revealing comparison, imagine the 1955 output of cars made by hand, assuming that three skilled craftsmen could make a car per year. We would then need 20 million such people in the automobile industry! The central concept of industry is that a production tool can turn out large quantities of something, inexpensively, of very high quality and in short order.

Utilize best teachers

Today in education we have a shortage of teachers—not just good teachers, but any kind of teacher. How does one quickly correct the shortage of an important social commodity? Is there any way of converting the good teacher into a "production tool," thus multiplying his effectiveness?

It may sound absurd to compare industry and education, but is it really? Education is still wedded to the handicraft idea—that is, one teacher turning out a few students at a time. All evidence at hand strongly suggests that handicraft production is meaningless in an industrial society except as a hobby or therapy.

Could the application of the methods of industry achieve anything in this respect with regard to education? I submit that a most fruitful area of experimentation lies here.

Education has relied heavily on one mass production tool for a long time now. It is called a book. Since the book was invented (a lot of people were pretty upset when that happened) a number of devices have appeared which increase the speed and accuracy of communication: photography, printing methods, records, radio, magnetic tape, television, movies. Virtually all of them have

Let's experiment and try "tooled" teaching for transmitting ideas plus the student seminar for handling feedback

been used in training, and very successfully too. What remains is to test their effectiveness in *education*.

Let me try another set of assumptions: (1) There are very few great teachers; (2) It would be desirable if the small number of students now exposed to them could be vastly expanded; (3) This can be done if a suitable medium, such as film, is employed. In other words, the teacher's message is "tooled" and then reproduced in any quantity desired.

Film is a remarkable medium. It can convey not only the message but something of the personality of the transmitter. A particularly interesting characteristic of film is that it is better at dealing with relationships than with isolated facts. This most modern of media happens to fit like a glove the most important of all problems in education: development of the individual's capacity to establish connections between isolated phenomena.

So there we have our experimental

program: find the great teachers in every area, squeeze them to the last drop, pour the precious distillate through a Mitchell camera and put the results in a million cans. It certainly is an application of the industrial method. What, if anything, is wrong with it?

Need personal contact?

Since it is difficult to be ruthless with one's own pet ideas, I'll try first to indicate what isn't wrong with it. Educators who have criticized the proposal seem to be unanimous on one point: personal contact between student and teacher is destroyed in the "canning" process. This is true. The question is, is it important? How many teachers have anything worth transmitting, whether by personal contact or otherwise? I have the unhappy feeling that there are few who do. And is it the contact of persons or of minds that is significant? Literally billions of people who never met Buddha, Moses, Jesus, Mohammed or Lao Tze have been deeply affected by their teaching.

What I believe is wrong with the "tooling" concept as applies to education is not the lack of personal contact, but the fact that it is incomplete. It is too simple. Man is a complex affair and he cannot be handled in the same summary fashion as a piece of material. In manufacturing, the tools are the active elements impressing themselves on inert materials. The finished product has no response to the process which created it, no sense of relationship to the factory; there is no "feedback" from passive to active.

Education is more involved. There is teaching, in which the teacher attempts to impress his message on the student, but there is also learning, in which the student, so to speak, "talks back." He argues, asks questions, reads books, writes papers, memorizes, forgets. Communication includes both message transmission and feedback. Furthermore, both transmitter and receiver are continuously modified by the process itself.

So the tooling concept is not a complete answer—you cannot manufacture an educated man. The student can be greatly stimulated and

perhaps enlightened by the teacheron-film, but there is no provision for his response. This, by the way, is also the limitation of the book. Following this line of thought, one might re-define the school as "a device for organizing the student's response to the stimuli received from books and teachers." The advantage of the film is that to a somewhat greater degree than the book, it can discharge the function of both book and teacher. Its ability to bring outstanding teaching to millions cannot, I believe, be seriously questioned.

Feedback by group

A short time back, in studying some research on the behavior of groups, I came across a statement that impressed me: If a group wants to learn something, it can teach itself. Needless to say, such a statement needs to be buttressed with reservations. The kernel of the idea is exciting, however, for it may offer the needed complement to the concept of "tooled" teaching. If a film presents a message, the group can deal with the processing of student responses. In a way, this is the idea of the seminar, but with a different orientation.

Taken as an interlocking unit, the concept of industry-based teaching plus the group as a device for handling feedback could have interesting effects on existing methods. For one thing, the quality of teaching could be up-graded in many areas with dramatic rapidity. There might also be an increase of student responsibility and a better understanding of the nature of the learning process.

What are the dangers inherent in this proposal, with its emphasis on standardization? They are considerable. But the human animal would still be peering out of holes in cliffs if the estimates of danger had always precluded the taking of risks.

Tried at Georgia

This bee flew into my bonnet a couple of years ago, when an experimental venture at the University of Georgia pushed me into an awareness of the industrial approach as a possible factor in education. I had been invited to serve as a consultant to the University's Department of Fine Arts. Knowing little about education and less about art school curriculums, I went down for three days, visited classes, listened to faculty members and left with the impression that there was indeed something cockeyed about the curriculum.

A second visit, in which Charles Eames joined me, revealed one thing that seemed very wrong: in certain classes a very long time was being taken to teach things that could be learned in a hurry. At the faculty meeting we expressed this as an opinion and before we quite knew what was happening, Eames and I had promised to return in five months with a demonstration of some of the ideas we were advocating.

The demonstration turned out to be quite a thing—a one-hour "lecture" without a lecturer for a non-existent course dubbed "Art X." It consisted of slides with taped narration and music, of simultaneous triple-slide projection, of movies (some made for the purpose, some borrowed). The theme of the lecture: communication. Its objective: to show relationships between areas people normally considered separate. The show was visually rich and it excited many people in many different ways.

Speeds "production"

What happened at Georgia was gratifying. A number of faculty members banded together and created a new kind of course. It merged "passive" learning (mechanized lectures produced by the faculty) with "active" (drawing, painting, modeling, carving, etc). The lectures have to do with art theory, but the students are as likely to be subjected to a film on screw machine operation as a slide presentation of Picasso's painting (sometimes simultaneously). This classroom is the only one I have ever encountered that smells like a gymnasium and the amount of work it turns out is unbelievable.

Some of the by-products of this Georgia experiment in getting students to experience the meaning of relationships have been interesting. It has been fairly common for new students to come to the instructor after the first few months and ask why they weren't enjoying television and the downtown movies as much as they used to. Apparently the mechanized lecture can raise critical standards in more than one area. Last spring the freshmen and juniors (who had been trained in a more conventional manner) were sent out for an hour of painting on the campus. The freshmen's work made one wonder what the juniors were doing in an art school. The high speed production methods of the new course, strange as it may seem, had resulted in a visible deepening of the esthetic content of the students' work.

Will educators take lead?

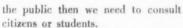
The result of all this, as far as I am concerned, has been a strengthening of the initial conviction that what we have learned in industry could take on many rich and varied meanings in education. The conviction, naturally, carries with it a desire to see many kinds of experiments in education to test it. However, despite the quite remarkable performance at Georgia, I suspect that the main initiative will not come from the field of education.

Educators as a group seem to lack the necessary vision, courage, energy—and funds. This is not a blanket condemnation; but contacts with men in industry and in education have tended to dampen my optimism about the latter. It is far more likely that the initiative will come from industry because it will be the first to grasp the scope and importance of the problem. Industry is familiar with the experimental approach and it has learned not to shy away from the calculated risk.

For my own part, there was the wonderful discovery that the best way to make something happen is to do it. Within the next couple of years some "sample lessons" will be made and tried out. The nice thing about these personal experiments with ideas and techniques is that they can't "fail." You see, just doing them contributes so much to one's own education.

Keep Your Public School-Wise

by THOMAS E. SMITH



The Bay County School authorities have procedures set up for professional groups and have recently adopted one for citizen study groups. Instead of appointing large permanent citizen committees, we decided to appoint, as the need arose, special citizen committees to study each particular problem.

This secures for us excellent advice, opinions and information from people carefully chosen for their special abilities. It also serves as a medium for informing the public, yet keeps official action where it is legally adequate.

Check public acceptance

For instance, we would like to put into effect a plan for vocational education, which we believe to be very good. But we do not know whether our public will accept the idea or not. Therefore, we have selected a citizen study group to go into the entire program of vocational education. Professional people are working closely with the committee to provide consultant service and do detailed work. We keep them informed about the total school program and the part which vocational education plays. They know their duties and functions well. Thus, they become better informed about a total educational program and carry the information to others.

As each program is adopted or a new policy established, it is necessary to inform the public. It is not just a question of announcing it but of telling a full story. Why is the plan necessary? What makes a policy necessary? Who had a part in making the policy? Not only must this be reported, it must be reported often. There are constant shifts in population which bring in new people who need to be informed.

The best medium of public relations is an informed child and he is the product of an informed faculty. We carry on teacher-information programs to keep them up to date on school laws and regulations as well as county policies. We encourage parents to visit the schools and we also have a very active program of home visitation.

PTA organizations devote most of their programs to studies and explanations of different phases of the school program.. Civic groups are kept informed through newsletters.

We have weekly radio and TV programs developed around citizens' questions concerning schools. Consultants and specialists are used in different presentations about specific problems.

Schools make news

Newspaper features and picture stories show many phases of our school activities and events. A series of articles dealing with school finance, for example, and others showing how reading is taught, have been effective.

We have developed our own movies of classroom and other activities to be shown to parents and TV audiences. Study courses on parent problems have also gained many school supporters.

Yes, these and many other public information devices are used constantly to keep the public wise in the ways of their schools here in Bay County. Thus we are able to build their programs and to hold their active support.

THERE IS any organization that can live within itself it is certainly not the public school system. No other agency must depend as much on keeping the public informed as does our schools.

Each person, whether he be taxpayer, parent, student or teacher, has his notions about how the job should be done. Our job is to get all these forces together and utilize them in doing a better job in our schools.

We must recognize that we are working in a public institution and that we must not get on the defensive every time someone criticizes our schools. Each complaint or proposal deserves serious thought and consideration. We must apply the problem to a given situation and see what fits and what does not. We must call in other qualified people to study with us and evaluate the situation.

If it is a problem that involves only the school system or one of its techniques, we must confer with professional groups; if it involves

Mr. Smith is superintendent of public instruction at Bay County, Florida.

The Peripatetics of ancient Athens
have a modern counterpart
in New York State

Teacher on Wheels



Teacher on wheels coaches remedial reading group.

by BERNARD S. SHORE

A NEW EDUCATIONAL specialist, the shared teacher, is becoming an integral part of the educational format of many New York communities. This shared specialist is a commuter—a teacher on wheels—who divides his time between several communities under the administrative supervision of the Board of Cooperative Educational Services.

These Boards were established in New York State in 1948 to encourage smaller school districts to introduce into their school systems on a shared basis educational services which, because of size or location, they could not afford individually. They make available to pupils attending smaller schools the specialized educational facilities, such as art, music, guidance, psychology and remedial reading, heretofore provided mainly to pupils only in larger school districts.

The Cooperative Boards were established to function as the administrative liaison between schools and personnel so that an adequate professional staff could be shared by interested schools. To encourage this movement, New York State under-

writes approximately 50 percent of the cost of the shared service.

Today, seven years after the enactment of the law, there are some 60 Cooperative Boards in the state, some of which have available as many as fifteen different types of shared educational services.

Out of this Cooperative Board movement has come our teacher on wheels, whose various classrooms may be 25 miles apart. Although this shared specialist is under the administrative jurisdiction of the Cooperative Board, he is professionally responsible to each school principal he serves. Specialists in the Board can therefore find themselves working for as many as five supervising principals, each with a different educational philosophy and an individualized perception of the role the specialist should play in his school.

The Cooperative Board teacher must have unusual flexibility to fill the varied roles his situation requires. In one school he may function in a traditional role; the next day, in another community, he may participate in an experimental type of program. This was the weekly schedule of one remedial reading consultant on wheels: he worked in one school district with children retarded in reading; then travelled to another district where he worked with teachers as a classroom con-

sultant in development aspects of reading; then on to a third school where he conducted speed-reading classes for bright students; and finally to a fourth where he participated in a group therapy program for the severely academically-retarded student.

Must be versatile

To be successful, the teacher on wheels needs an eclectic approach to education. In many communities, perception of his role may be quite different from training and current practice. For example, a principal's concept of the duties of a school psychologist may be psychometrically oriented, in contrast to the psychologist's broader training and experiences in interpreting children's needs to staff, parents and community. Many a well-trained specialist has fallen flat on his academic degrees because of an inability to respect community readiness for new educational experiences. The Cooperative Board specialist must have the maturity and sensitivity to assess and respect the degree of educational readiness possessed by each community he serves.

The capacity of communicating ideas is another requisite for specialists on the Cooperative Board. No educational specialty is an island unto itself. The implications of any

Mr. Shore is curriculum coordinator at The Children's Village, a residential treatment center in Dobbs Ferry, New York. He was formerly a teacher on wheels with the Cooperative Board.



tests and diagnoses individual cases







successful technique are school-wide and are generally applicable to the regular classrooms. Professional communication within a school system generally takes place on three levels: writing, active demonstration of competence, and exchange of ideas through in-service training.

For many years the superintendent of one supervisory district has published an annual magazine devoted to new educational programs in his district. Cooperative Board specialists in this district have successfully used this publication to transmit new techniques. The second level of communication, demonstration of competence, is a professional requirement for service in the Cooperative Board. The Board itself cannot act as a training ground for educational specialists. Board personnel must be highly skilled and able to wear the mantle of experience and success with comfort and in good taste. The third level of communication is inservice training. The ability to communicate new techniques without pedantic omniscience requires professionally secure individuals. Board specialists have participated successfully in many in-service training programs.

A sense of professional reliability is axiomatic for Cooperative Board service. Long distance administrative supervision requires personnel

with a sense of professional honor about hours, attendance and responsibilities. Different schools have different work days. The staff of the Cooperative Board accepts and respects the work day and traditional teacher requirements of each school he serves. The professionalism of the Board specialist can best be seen by the readiness with which he accepts himself as a member of each principal's team. The mature specialist recognizes his own individual professional skills but respects always his basic responsibility as a staff member of the school he serves.

The administrative problems within the Cooperative Board are varied and complex. Recruitment of personnel who can fill the heterogeneous needs of many communities requires intensive interviewing. Teaming up schools with appropriate specialists becomes a complicated jigsaw in which the pieces are personality, budget, time available, educational philosophy and professional training.

In-service education is always a supervisory responsibility. The Cooperative Board of the second supervisory district in Westchester introduced two years ago a psychiatric consultant service for the psychologists and child-development specialists on its staff. Monthly seminars were held to discuss professional problems and current techniques.

Professional experiences on this level attract top personnel who see within the Board opportunities for greater professional growth and service.

Recruitment of personnel in a fluid setting like the Cooperative Board requires a competitive salary scale that will attract outstanding personnel without alienating participating school districts. The Cooperative Board must be sensitive not only to the needs of its staff but to the total salary picture in each supervisory district.

This year the State Legislature enacted a law which, for the first time, enables Cooperative Board personnel to achieve tenure. This is another milestone in the story of the Cooperative Board movement. It will stabilize personnel and enhance recruitment. It symbolizes the permanent character of the Cooperative Board in New York State education.

The Cooperative Boards will be servicing more schools than ever before. The sociological phenomena of our generation—the movement from the cities to the suburbs has placed tremendous burdens on the suburban school system. The consequent decentralization of schools has necessarily increased the unit costs for permanent special services teachers. The teacher on wheels is helping to solve this pressing problem in education.



Industrial Arts Is Not Just an Extra

by CHARLES QUINLAN, Jr.

An industrial education director explains how it contributes to the educational program by combining critical thinking with skill in action WITH THE CURRENT inflation of the dollar, including the educational dollar, the taxpayer has a right to question the justification of each portion of the educational program. This is healthy, for it forces the administrator to keep a think ahead of Mr. Taxpayer.

With this in mind, the writer has asked himself how he would justify to Mr. Taxpayer the industrial arts program he is responsible for. How would he describe its philosophy and show in detail to what extent this type of education contributes to the education of the whole child (to use the overworked but meaningful term) which today is the accepted responsibility of all public education programs.

To do this, first let us consider how the taxpayer views the industrial arts program. In most cases he probably sees the school shop primarily as a place where students are given preparatory training for entrance into trade occupations and vocational activities. This assumption is entirely incorrect. True, certain skills are developed but these are merely of the "handy-man" variety which every home owner will utilize. The developing of such skills represents only an incidental but vet valuable outcome of every industrial arts program.

The principal aim of industrial arts education is not only to teach but to give meaning to the traditional, and still respectable, three R's. The school laboratories or shops provide the student with situations that involve creative problems which can only be solved by the application of academic knowledge he has studied in textbooks. Here accuracy, attention to detail and stick-to-itiveness despite discouragements are needed for success. It is here that students must combine skill in action with the ability to think. Here the results of such thinking are readily apparent

Mr. Quinlan is director of industrial education with the Stratford, Connecticut, Department of Education.

and objectively illustrate the need for carefully thinking through each problem before action is taken.

Industrial arts education, then, is in reality one of the basic methods of teaching the three R's, and is not just another curriculum extra to be added or withdrawn as funds or fads dictate.

3 R's applied

To illustrate its contribution to the three R's, let us consider the making of a typical project in the woodworking laboratory. First, the student must select the item he wishes to make; let's say it is a bookcase. He may choose one for which plans have already been drawn, or if he is capable he designs and makes his own plans-either way he must do some careful research and thinking. He must examine reference books and read descriptions for constructing the item. He must carefully figure the amount of lumber needed, probable waste, the amount and type of hardware and finishing materials, and then total up the cost of the project.

Then he must write up a work procedure or job sheet setting down, in order, the steps involved in construction. Even in constructing the item he uses more than his hands. He must carefully measure and lay out his stock, add and subtract fractional dimensions to find over-all distances, work with tools, construct angles and parallel lines and locate points of tangency.

The inclusion of industrial arts education in the school curriculum is a frank acknowledgment that schools must change with a changing society. Time was when learning by doing through work experiences, which is what industrial arts education is, was a part of every individual's out - of - school education. There were sheds to build, fields to plow and plant, fences to build, wagons and tools to repair. Industrial arts, therefore, represent an attempt by educators to provide all vouth of today with the rich learning-by-doing experiences which our forefathers had.

Because our mass-production economy denies to many youths the op-

portunity to receive such experiences outside of school, they must be included in the school program if today's youngsters are to receive the same educational opportunity as did their forefathers.

We have thus far stressed the value of industrial arts education as a practical application of the three R's. It also provides other educational experiences which are considered essential in every up-to-date educational program.

In the area of citizenship and civics, for example, it makes a particular contribution. The efficient functioning of any industrial arts lab. in fact, depends on the student personnel plan in operation. These plans usually call for a studentelected foreman who is in sole charge of the laboratory under supervision of the instructor. Under this student foreman we find tool and equipment checkers, safety engineers, attendance clerks, library clerks, inspectors and others with designated responsibilities. Students thus participate in supervision and management and learn, through experience, that the extent to which they will profit from their tools, facilities and equipment depends upon how efficiently their elected representatives carry out their responsibilities.

Young consumers

Industrial arts education also makes a vital contribution to consumer education. Or, perhaps it would be more accurate to say that consumer education is a part of the industrial arts program. For example, consider how students and their instructor arrive at the cost of a project the student has made and wishes to purchase. The student figures the cost of all the materials he used from a material price list furnished by the instructor and secured from actual invoices, to which he adds an estimated waste allowance and a given percent for overhead. Then by scanning advertisements and visiting department stores he estimates how much a similar item would cost on the open market. This creates a fine opportunity for discussion of open-market costs and reveals the fact that the distributor and retailer are entitled to a profit for their services.

In the use of materials and methods of construction, the industrial arts laboratory provides first-hand knowledge. When it is realized that the average American family annually uses about 90,000 items and services, this phase of consumer education presented through the industrial arts program is readily apparent.

Its contribution to vocational education is, of course, easily seen. It provides every child with broad exploratory experiences and elementary skills in the use of tools. It prepares the student to enter his chosen field of work in industry with marketable skills. But skills of equal value are also acquired by students who plan to enter college, particularly those who enter the fields of engineering, dentistry, medical surgery or scientific research. Supporting evidence here is a statement from the Harvard Committee report, "General Education in a True Society," issued in 1945, which reads in part:

We shall say something about the importance of shop training in general education. For those who intend to go into scientific or technological work, it has special relevance. The manipulation of objects, the use of tools, and the construction of simple apparatus, all are required for entry into the field of experimentation. Even the pure mathematician is greatly aided by shop experience . . . The lack of shop training is at present a most serious deterrent to entry into all types of technological work and to college and postgraduate training in science, medicine, and engineering.

Industrial arts, then, is not just a curriculum "extra." In the school shops, students work together securing information through real-life situations as to how more than one-half of American wage earners make their living. They become familiar with the real meaning of "the division of labor." They learn that certain types of work require more intelligence than others, some more physical strain than others and that a natural talent is necessary in some types of work.

Thus it is that industrial arts contributes to the understanding of the problems of all workers which is of vital importance in shaping and preserving the principles of democracy.



These folding tables and chairs inhibited the use of our multi-purpose room. With folding table-and-bench combinations we can now (*l.* to *r.*) feed 350 pupils in 50 minutes with less noise and disorder, clear the room in 15 minutes, and quickly resume afternoon music and recreation activities.



Equipment for Multi-Use Rooms

Don't let the wrong furniture make your multi-purpose room a no-use space

by C. K. LEONARD

Does the multi-purpose room solve the problem of the small school building? On the architect's drafting board, it proposes a highly effective solution and is definitely a boon to the limited construction budget. But looking at it from a practical point of view, it often poses a few problems of its own.

It is not the shape or the size of this room that makes the difference between efficiency and uselessness, nor is it the color or the material used in construction that is the forerunner of grief. Experience bears out this point: it's what goes into the room that counts.

Our multi-use room is 90 feet long and 60 feet wide—5400 square feet of space intended to function as a cafeteria, assembly room and a recreation area.

If a "most important" function were to be selected, it would probably be the cafeteria, as it is used every school day; but all three functions are necessary for an integrated school program.

Out of an enrollment of 400, 350 students pass in two shifts through our cafeteria between 11:20 a.m. and 12:10 p.m. Music and recreation

Mr Leonard is superintendent of schools in Republic, Missouri.





classes were originally scheduled in the room from 12:30 p.m. to the close of the day. It is also used as an assembly room about twice a week and often in the evenings by school and PTA groups.

When the Republic elementary school was built in 1954, we had a choice of in-the-wall tables, portable folding tables with benches or chairs or standard folding-leg tables and chairs. At the time, we felt that the latter combination would provide the required conversion from one function to another with enough speed to suit our purposes. And the initial purchase price was low.

Twenty-four folding-leg tables and 192 chairs were therefore purchased during the summer of 1954 and installed in the room upon its completion that fall.

We now faced the first of our problems. It took an hour and a half for two people to set up these tables and chairs in the morning, to take them down after the meal and to clean the room after its use. The afternoon section of classes was more than half over by the time the room was again available for use!

Instead of using the room to suit our daily schedule, we now had to change our schedule to suit the room. Other problems evolved from this lack of convertibility—instead of an all-purpose room we had a nopurpose room, for even the cafeteria developed into a headache with confusion and noise at mealtimes, disappearance of aisles between shifts and extra work for our head custodian and his assistant. We endured this situation for five months.

Last year, faced with the headaches brought on by present seating facilities and concerned with growing enrollment, we decided to investigate a different type of equipment. As the room had been solidly constructed, there was little chance of in-the-wall tables providing an economical solution, so we checked on portable folding tables with benches or chairs.

Chairs seemed preferable. We already had a good supply of them in reasonably good condition, and we were worried about the children's posture with backless benches. It was then demonstrated to us that children seldom use the backs of their chairs during a meal, only after they had eaten. And with two shifts to run in 50 minutes we did not plan to encourage lounging in the cafeteria.

It was a more effective demonstration than that, however, that tipped the scale in favor of folding tables with attached benches.

Within 30 seconds the portable

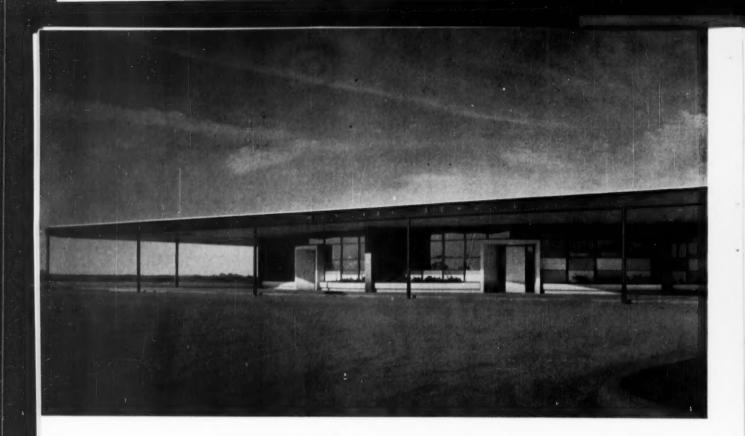
table-and-bench combination could be folded and started on its way out of the room to a storage space down the hall, providing the speed of conversion we needed so badly. One man could now clear the area in only 15 minutes!

Benches also solved the problem of disappearing aisles and excessive noise during the lunch period. The custodian's job in the cafeteria was effectively reduced so that he could concentrate more of his efforts on other work throughout the building.

For these reasons, we chose 12 of these tables for our multi-use room. This increased the previous seating capacity of our cafeteria by 20 percent, giving us the same amount of open space as before with the previously mentioned benefits.

This is not to imply that we recommend this particular table for all schools, but rather to stress the point that it's what goes into a multiuse room that counts. The important thing is to consider carefully the type of furnishings that will fit your needs over the long run.

If speed of conversion is all-important, this speed is dependent upon the kind of furnishings chosen. Proper attention to this fact eliminates most of the problems commonly found in the multi-use rooms of the small school.



Air-Conditioned Elementary School

ONE OF THE ARCHITECTS of the new circular Belaire Elementary School in San Angelo, Texas, jokingly said, "For years we have been designing the school around the child, but here we designed the school around an air-conditioning unit."

But there is a good deal of truth in that statement. According to Architectural Forum, July, 1956, this 240-pupil school is "one of the first buildings of any kind really to be designed specifically and carefully for air-conditioning."

This school, however, is not only a "first" in environmental controls; it also has significance educationally and economically through its multiple use of space.

Designed by Architects Caudill, Rowlett, Scott Associates and Don R. Goss Associates, the school consists of classrooms grouped in an economical spoke-wheel pattern around a splitlevel center hub. The air conditioning equipment room is located on the lower level of the hub. The upper level, three steps up from the classroom floor, affords space for dining, general education activities and exhibits as well as a stage facility for large group assemblies. Sliding walls separating three of the clasrooms can be opened to form a large audience area.

The centrally located air-conditioning unit necessitates only short-run supply ducts and no return ducts as grilles are provided in the stair rises of the multi-purpose stage.

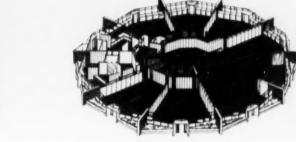
A square roof over the circular plan provides the largest overhangs (45 feet wide diagonally) on the southeast and southwest where sun protection is most needed.

Belaire, like most other good schools, resulted from close teamwork of educators, architects, engineers and school board officials. One particularly contributive board member suggested the split-level arrangement.

But why air-conditioning? Superintendent G. B. Wadzeck explains it this way: "Air-conditioning was the logical answer to a sound problem—jets flying overhead. The site, located close to the flight pattern of a nearby air base,

This is the first of a series of articles on interesting schools designed by Architects Caudill, Rowlett, Scott Associates, of Bryan, Texas, that will appear in this magazine in the next few months.





was chosen in spite of the noise because of the tremendous residential building in the area. We licked the noise by simply shutting it out, by closing all windows and doors and by getting our comfort with mechanical means."

Now with air-conditioning, classrooms are comfortable year round, even though outdoor temperatures are in the 90s a good part of the year. Accordingly, Superintendent Wadzeck plans to use the school during the summer months also, for special remedial and enrichment programs.

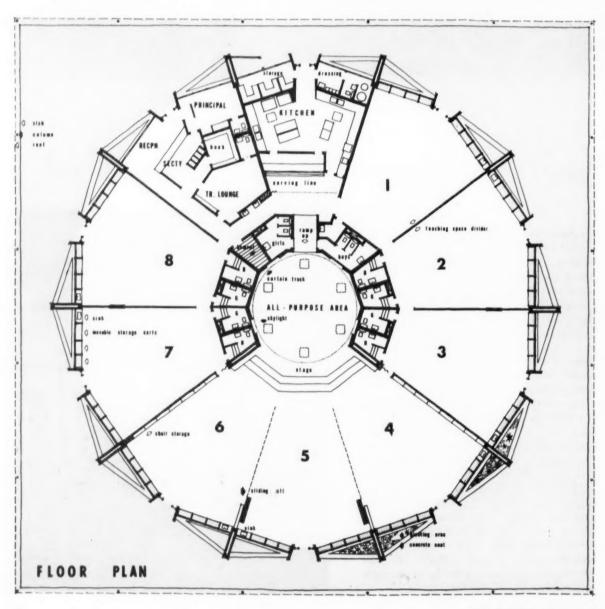
Air-conditioning has also solved the problem of extraneous sound. Architect Caudill further notes: "The sound control also eliminated the noise, which could have been louder than the jets, created by the patrons on the other side of town who didn't get the air-conditioned school."

Air-conditioned Belaire was built for the low figure of \$191,122 including fees, kitchen equipment and paving. The air-conditioning was slightly over 10 percent of the total cost and averaged about \$495 a ton, compared to the \$660 average for this area of Texas. The planners are convinced that the circular arrangement is responsible for this low cost.



Eight classrooms, office and kitchen form spokes in this circular school. Center hub is split-level; lower level houses air-conditioning unit. Circulation space is a circle between hub and classrooms. Sliding walls between three classrooms facing stage open the area for audience seating; chairs are stored in walls. Six skylights over all-purpose area admit natural illumination, for better vision.







Colored area shows classroom's supply duct of conditioned air. Each space is separately zoned with individual room thermostats.

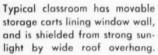


air-conditioned school





Above: entrance to principal's office and reception area. Its entryway is identical with those of the eight classrooms.





Upper level of hub is an allpurpose area, here being used as a cafeteria. Food serving line is at rear down a ramp.



Programming in Riverside, Cal.: (1) students plan assembly with teacher, (2) in class they work out production schedule, (3) backstage workers fix lights, (4) another opening, another show.

Planning Auditorium Programs

Every school administrator, and the building principal in particular, is concerned with school assembly and auditorium programs. How should they be planned? Who should have a part in planning them? What should these programs aim to do? Who should participate in the program itself? Should they be attended by the community as well as by the student body and staff? How frequently should they be held? These are some of the typical questions that come up in this area of the school program. One good way to appraise our present assembly programs is to set them beside those of other schools. And believing that we get new ideas from others, we have asked representatives of both elementary and secondary schools in Wisconsin, Iowa, Virginia, New York, California and Massachusetts to share with us their solutions to these problems. You will find their discussions stimulating and most interesting.

Planning the Small-Group Assembly

by HAROLD E. CRIPE

THE ONLY PLAUSIBLE excuse for a school assembly is a specific job to be done that can best be accomplished by bringing people together. Such assemblages, then, are expected to accomplish something that effectively meets the needs and wishes of the attending group.

Economy of time is a prime consideration for those responsible for any called meetings. Good administration will view critically the value of the 30 minutes consumed by 300 people. The weight of this challenge should give cause for concern to all who are responsible for any planned series of school assembly programs.

Historically the school assembly grew out of the principal's need to make general announcements and to define policy. Later, the assembly was called to view dramatic endeavors or to distribute awards. Viewed through the eyes of many a teen-ager the "pep rally" too often symbolizes a school assembly.

With a more forward looking perspective one could see the school assembly as a meeting place for wide-range endeavors geared more to curriculum activities providing the opportunity for maximum pupil participation.

Planning no longer can be solely the responsibility of the principal if the program is to reflect creative activities emanating from the classroom or other activity group. Cooperative planning implies that it be done for children, with children and by children, with a good teacher directing the overall activity.

In newer terminology an assembly need not be an all-school affair. An ideal audience situation, with all favorable concomitants, can envelop a single room or grade level. The better learning situations in the elementary school often involve small groups.

Only recently has a major attempt been made to utilize the assembly period as an avenue for interpreting school activities to the community. Multiple use of the assembly, large or small, to interpret activities of the school has done much to cut down the once heavy emphasis upon mere entertainment.

Seemingly too, schools have realized the professional danger of striving for flawless perfection in every public presentation. Slip-shod offerings cannot be condoned; yet are overly-polished rehearsals productive when they interfere with normal school activity and learning? Fixed objectives and mature judgment must determine that point of diminishing returns. Especially is this true at the elementary school level. Children are children the world over and they do not always do things to perfection as judged by adult standards.

Frequent short assemblies are seen as more effective than the long, drawn out affairs of an earlier era. Increased opportunity is offered today for all to become active participants rather than spectators on the gridiron of learning.

Plan school-wide programs first

Good planning anticipates programming for the entire school year. A good point of departure is to structure first the all-school assemblies. This is most easily achieved by building a nucleus about fixed special days, beginning perhaps in October with a United Nations theme, and so on through the calendar. From here a balanced program can be formulated to include almost any activity desired for emphasis. Schedules should provide time for programs that spring up spontaneously during the year out of regular classroom or group activity.

Where the unit method of teaching is accepted practice, innumerable culminating activities serve as ideal program material. A veritable gold mine of such possibilities for small group assemblies lies still undiscovered in every elementary school.

A brand new look has been added to program planning by surveying the community for talent as well as instructional materials that can be used in assembly programs or for enrichment of classroom experiences. Citizens feel honored when called upon to serve as resource persons—teachers if you please—in the schools. Local high school students can be used most effectively by elementary schools to bring music, art, drama or demonstrations to supplement interests and activities of younger students.

No set pattern exists that is suitable for all schools. Basic to any program planning are a willingness to start plus cooperative effort and action on the part of all concerned. In many instances the principal must by necessity become the spark to insure at least a start in a given direction.

The type of program selected for assembly presentation is determined by objectives. Long range planning ought to insure a variety of objectives—and, conversely a variety of programs. Briefly stated, a suggested program might be weighed against the following objectives:

Does the assembly motivate class work?, interpret

Mr. Cripe is principal of the Fratt Elementary School in Racine, Wisconsin. some phase of school activity?, expand and fortify student interests?, instill acceptable ideals and virtues?, generate school loyalty?, generate pride and loyalty to community, state and country?, encourage better use of leisure time for out-of-school activities?, develop the aesthetic sense?, give opportunity for learning and practicing good audience behavior?, give opportunity for participants to develop self expression?

Close scrutiny of educational objectives is most assuredly the first step toward a successful program.

Don't ignore class-related programs

Rare is the staff which cannot envision a multitude of themes for planning an entire series of programs. Attention too often turns toward the all-school assembly and neglects the creative work that goes on daily in the classroom. Current educational periodicals, for example, abound with suggestions for the all-school assembly to include safety-patrol recognition, pet shows, hobby shows, scout night, amateur night and community sings.

On the contrary, many schools defend the assertion that greater values lie in programs that lend themselves readily to small groups.

Class demonstrations are perennial favorites, and rightly so. A fifth-grade class recently completed a major unit on "The Sea of Air About Us." Parents were invited to observe the culminating activities of the unit. For the first time many of these parents, educated in

another era, viewed a whole new philosophy of education. Art, language, spelling, science, history, geography and arithmetic were integrated into meaningful learning experiences. Every child had a satisfying part in the whole process.

Such a pattern can be utilized for any unit in almost any subject matter area. A reticent teacher might find the demonstration an easy starting point for such shared experiences. Appreciation of parents usually will provide the motivation for further efforts by the teacher.

Dramatizations which emerge naturally from almost any classroom experience are readily adapted to many situations for all age groups. When pupils plan, write, direct and present their own materials, motivation for learning will reach new highs.

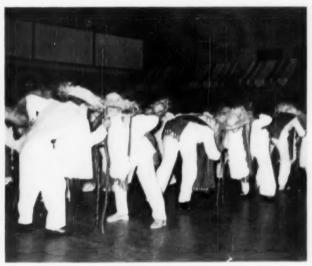
Musical programs by children offer an inexhaustible source material for small group or large group activities. Gymnasium and rhythmic activities also lend themselves to easily staged and colorful programs.

Ready-made materials, prepared by others, can be helpful and suggestive to a beginning teacher, but rote memorization and presentation are doubtful practices.

Our schools have traveled a long road since the entire student body marched to the auditorium, on signal and with piano accompaniment, to view a school movie that had been selected by teachers or the principal. There is still a long road ahead to realize all the potentialities that lie within the auditorium program.



Fratt sixth-graders perform native dance and ritual in their program, "Fiesta." Project arose out of their social studies unit on Latin America. A full-afternoon affair to which the parents were invited, the program integrated the youngsters' classwork in art, music, language, geography and history.



November, 1956

Students Plan Their Own

by P. O. BRUNSVOLD

EWER PAY ASSEMBLIES and more student-centered programs—this has been the trend at Mason City, Iowa, High School the last six years. Prior to that time from eight to twelve pay programs had been scheduled each school term. This year only five are included, and these in turn have been carefully selected by a combined student faculty committee.

Local student opinion polls indicate that the students seem to prefer the assembly program which originates within their own school and student body.

The student council, with representatives from each of the 38 home rooms, last year assumed the responsibility for six of the year's general assembly programs. These included homecoming, Christmas, ninth-grade orientation, and three all-school award assemblies. Other student-centered auditorium programs included the departments of vocal music, speech, instrumental music, dramatics and athletics.

Auditorium programs presented by students participating in community-sponsored organizations included the Hi-Tri, Hi-Y Lenten assemblies and the youth fellowship programs held during Youth Emphasis Week. The youth fellowship programs were sponsored by the local Council of Churches.

Two other interesting auditorium programs attended by all students and held each year are the class officer-election campaign rally and the annual magazine sales-award assembly. The campaign rally comes early in the fall, just prior to the balloting for the class officers. The rally is planned and organized by the student election board as appointed in the various homeroom groups and by the student council. At this assembly each party is given a limited speaking time for all of its candidates for the various class offices. The candidates then attempt to influence the students toward a favorable vote for themselves and their party.

It has always been amazing to us on the faculty that these young people are able to get up in front of their own friends and be so relaxed and effective in their speech-making. Their clever slogans and witty sayings would do justice to national political activity. The student body enjoys every minute of it. The magazine sales-award assembly culminates the money-raising project of the junior and senior classes. This program features complete financial reports by the student business manager and his assistants, as well as the distribution of the sales awards and prizes. Approximately 65 students participate in one way or the other in the planning and execution of this hour-long program. Intense student interest is always noticeable because the funds received from the magazine sales result in a free banquet for each senior and a free prom for the juniors and seniors.

An interesting feature in connection with Lenten assemblies and Youth Emphasis Week programs is the early hour at which they are held. The student committees have always requested that they be scheduled prior to the opening of school at 8:10 a.m. Attendance at the week-long series of meetings is voluntary, with the committees in charge making good use of posters, the daily bulletin and the school p.a. system to encourage attendance. Student attendance increases as the week



Talent shows at Mason City put students in limelight . . .

Mr. Brunsvold is principal of the senior high school in Mason City, Iowa.

progresses; by the end of the series the auditorium is nearly filled to capacity.

Members of the student body, representing the various churches in the community, plan these short devotional meetings. The committees use students for the opening and closing prayers and the scripture reading and as hymn leaders and speakers on the theme selected for the day. The speakers are limited to four or five minutes.

Typical of the student council-sponsored programs is the annual Christmas assembly presented just prior to the Christmas holidays. Early in the school year the council selects the committee responsible for this event. From the beginning the committees have favored the home talent show, one that featured small groups and individual numbers. During the few years that this event has been in existence it has been the means of bringing into the limelight dozens of boys and girls with talents previously unknown. Their part in the show gave them the opportunity to gain student body recognition which is so much desired by our teen-agers. Overnight, names of students have sprung into prominence among their classmates because of their contribution to this auditorium program.

Two years ago the committee in charge came to the writer with the thought that it would be appropriate to close the assembly in a serious vein. The students suggested that the last ten minutes be given over to a Christmas message by one of the local pastors. The suggestion was tried with unusual success. The committee felt that the students had been dismissed from the auditorium with their thoughts centered on the true meaning of Christmas.

Nothing, in the writer's estimation, will do more to



. . . accords them recognition of their fellow classmates.

develop loyalty and spirit within a high school student body than a series of well organized and well planned student-centered assembly programs. These young folks have the talents; it's up to us to give them the opportunity to use them.

auditorium programs

Programs with a Learning Function

by HAROLD M. WILSON

THE AUDITORIUM PROGRAM at Wakefield, Virginia, is planned as a complementary curricular offering. From the many purposes that auditorium programs can serve, the staff has selected those which seem to them most worthy. We want our programs to unify school spirit, intensify the students' awareness of moral and spiritual values, add to the students' cultural background, display school activities and deepen the students' sense of national pride.

Dr. Wilson is principal of the Wakefield High School in Arlington, Virginia. To insure that these objectives are met, a student-staff assembly committee meets early to plan the year's program. A student representative from each grade level, a member of the student council, the teacher chairman of each grade level, and the administrator in charge of student activities make up the group primarily responsible for the planning. However, other resource people are called in when needed.

A 45-minute auditorium program is held each week directly after the Tuesday homeroom period. In this way students' attendance as a homeroom group is facilitated, and preparations for the coming program can be made in the homeroom. The committee has found that students need to know in advance (long in advance, reinforced by an immediate reminder) the type of program and

the behavior appropriate to the program in which they are to participate.

The student council each year gives specific guide sheets to students to help them become aware of their responsibility as an audience to help set the tone for the activity at hand. Knowing the programs during which applause is inappropriate or appropriate, for example, is a little thing in itself, but unless students receive help they are not likely to act with ease as audience participants. Our students appreciate this help and participate with security in the variety of programs presented.

Make programs interesting, timely

The planning committee attempts, within the time restrictions imposed, to plan programs which serve the purposes outlined, by making them truly interesting, timely and stimulating. For example:

Unifying school spirit. Three seasonal sports assemblies are held at which members of the interscholastic teams are presented, coaches discuss team problems and prospects, cheers are learned and led, etc. Since over 50 percent of our boys are engaged in these activities, wide interest is assured. Student government assemblies are held, the most dramatic of which is the annual initiation of new student government officers. At the end of this initiation the officers pledge honestly to strive for the welfare of all the students, and the student body pledge (in a deeply impressive ceremonial that has impact and meaning for each participant) to support their elected officers.

Intensifying the students' awareness of moral and spiritual values. A short devotional period led by students is included in most of the programs, and special programs of observance are held just prior to the Thanksgiving, Christmas and Easter vacations. These programs rely on students and student groups and include religious leaders of the Jewish, Catholic and Protestant communities.

Adding to the students' cultural background. Programs which include symphony orchestras, armed forces music organizations, statesmen or others familiar with national and international affairs, foreign diplomats, authors and critics, etc. are included in our schedule for the year. The science demonstrations given by large industrial concerns such as Westinghouse and General Electric are also valuable.

Displaying school activities. The displaying of club activities which can be presented effectively to a large audience, such as square dance, science and music clubs, are an annual tradition. Music assemblies are held wherein both the vocal and instrumental groups combine. Variety in music and ensemble is a goal. One-act plays from English classes also are produced for large numbers of students. Award assemblies, where outstanding students in many school programs can be recognized, are very helpful in serving this purpose.

Deepening the students' sense of national pride. The birthdays of famous Americans, dates of special significance in our American heritage, and national holidays are incorporated into our plan for assemblies. The committee attempts to vary these. One observation may be incorporated into another type of assembly as a quotation or thought for the day, another may be a full program involving community participation at a flag raising preceding Veterans' Day, and still another may be a program consisting primarily of public addresses. These programs are not mutually exclusive and are often put together in various combinations, but the committee consciously attempts to insure a comprehensive coverage and to construct variations on the themes each year.

Once the year's programs are set, the mechanics of conduct become the responsibility of the administrator in charge. Formerly we used a teacher in this capacity whom we released from one assigned class. This attempt to lighten his load was laudable but we found it less than satisfactory. It cost at least \$800 or more to release the teacher and the remaining part of his schedule was not flexible enough to facilitate the detailed coordination necessary. We believe that once the program is set the administrator and his secretary can handle the details more efficiently and at less cost.

Role of students and staff

This does not preclude student and teacher involvement in greeting guests, conducting the program itself, etc. Important learnings are possible through the widest possible participation of students and staff in these activities. But we feel that the coordination of details is best handled by one person with the authority to move to action the custodial staff, secretarial staff, various clubs (such as the stage lighting club) and departments involved, and to hold them to concerted action until the last details are completed.

For example, an important detail is the preplanning necessary for the prompt and orderly seating of the audience. Someone has to determine seat and section allocations to homeroom groups. This is a detail that need not involve a group of people. The administrator can make these allocations, produce auditorium seating charts, and send them to each homeroom. The homeroom groups can then be seated without the confusion which often destroys the atmosphere for an auditorium program and lessens its effectiveness even before the program itself has begun.

In some manner, student opinion on the worth of each individual program should be attempted. This is accomplished in various ways. At times, informal samplings are made by personal contact with students in the hall, with student leaders, etc. At other times, more formal attempts by organized homeroom discussion are used to determine how effective the program was.

The considerations outlined above have given us a reason for presenting each program, staff and student participation in the planning of the programs, effective coordination of detail in the preparations for the programs, student participation in the presentation of the programs, and information concerning the success of the program.

Objectives and Methods

by GEORGE E. RAAB

LEMENTARY SCHOOL ASSEMBLY programs should be focused around children. They are worthless if designed by adults, directed by adults and aim toward the perfection of a Broadway performance.

These programs become important only as they serve a clearly defined role in the total educational objectives of a school. Let us consider, then, some of the purposes of school assembly programs:

1. To provide opportunities for all children, through dramatization, to reconstruct experiences, thereby giving these activities a more vitalized meaning.

2. To encourage self-expression by providing opportunities, in a setting natural and alive, in which children can express themselves in a manner which gives them stature and assurance.

3. To provide socializing and unifying experiences for children where youngsters at varying age levels meet together for a common purpose.

4. To develop an appreciation of our way of life and the significant contributions made by many people, by sharing, in a larger setting, experiences which build an intelligent love for our country and a real respect for the people who have made a contribution to it.

 To provide training in appropriate audience habits in a day and age when children are increasingly becoming members of audiences.

6. To give recognition to commendable achievements and successes, thereby giving children an opportunity to build status among peers by making a worthwhile contribution to a larger school group.

 To provide problem situations important to children, through plaw productions, which capitalize on the sum total of children's resources.

While we recognize the fact that many of these purposes form a conscious part of the goals of each classroom, at the same time there is real justification for auditorium programs as long as certain basic criteria are followed:

Children should be clear about the purpose and nature of each program;

Children should be grouped according to the purpose of the program, the peculiar nature of the program,



Heathcote pupils planned and prepared this circus skit.

the range of pupil interest and probable attention span;

There must be value in the program for both the performers and the audience;

The auditorium or assembly schedule should reflect flexibility and variety;

Some time during the year each classroom group and each child should perform in an all-school assembly;

When children are required to practice or make other preparations for all-school assemblies, time and space for such practice should take precedence over other activities;

Appropriate standards of behavior for both performers and listeners should be set and adequate supervision provided;

Parents and friends should be invited to all assembly programs, space permitting, as this is a most important public relations link, and in these cases visitors must be informed of the purpose of our school assemblies:

If auditorium programs are to be effective for all children, the schedule must provide for specified all-school assemblies at such occasions as Halloween, Thanksgiving, Christmas, Lincoln's and Washington's birthdays and Easter, and other assemblies of more limited interest developed on the spur of the moment, with attendance and performance optional and at the discretion of the classroom teacher;

In the final analysis, the value of any program is determined by the degree to which it has made an important contribution to the total school life of boys and girls.

Auditorium programs become important to children

Dr. Raab is principal of the Heathcote Elementary School in Scarsdale, New York. only as they take increasing responsibility for planning, scheduling, executing and evaluating them. To be more specific, an assembly committee composed of children under the guidance of a competent classroom teacher can take the initial responsibility for scheduling assemblies. After certain all-school assemblies and dates have been agreed upon, this committee sets up a schedule and enters these dates. They then can make weekly trips to each classroom and schedule such other assemblies as teachers and children wish to put on.

These types of assemblies might include dramatizations, reviews of activity units, original plays and programs, group singing, dancing, music appreciation, picture talks, discussion of safety rules or other school problems, films and slides. This assembly committee, after arranging the scheduling, can then disseminate information and publicity, develop a code of auditorium pehavior, decide on mechanics and number of pertormances necessary to accommodate the audiences, and arrange for guides.

Unless children themselves play the major role in planning it and putting it on, the program itself can have little value for them.

This is an instance when a discerning teacher involved children wisely:

Mrs. Reynolds' first-grade class decided to put on a performance that centered around an animal circus.

From the very outset, children planned the skits, the sequence and the content, and they planned it so that each child would be involved. With the help of the music, art and shop teachers, these first-graders created some original music, designed costumes and prepared the props they needed. At rehearsals they participated in the evaluation. At the performance they handled all of the props and controlled the portable footlights. What a success to see all of the animals parade out and do tricks under the direction of a ringmaster, and see sets moved with finesse and purpose by the hands of six-year-olds.

Or consider for a moment the variety talent show coordinated by a committee of five upper-grade children. These youngsters announced plans for a talent show, went around from room to room to enlist talent from wherever it came and whatever the nature of the talent might be. They planned a series of programs taking into account the probable length of each contribution and the probable response and attention span of the audience. They introduced each performer in glowing terms and with pointed enthusiasm.

The recognition, opportunities for developing poise, and other values which come from such experiences are inestimable. But only as children are involved in scheduling, planning, executing and evaluating school assemblies do these programs make their maximum contribution to the school program.

auditorium programs

Getting All Students into the Act

by ROBERT L. PATTON

UNIVERSITY HEIGHTS Junior High School in Riverside, California, recently received a Freedoms Foundation award for distinguished success with assembly programs.

The award was based not only on high standards of programing but on total student participation as well.

Seldom on the stage, but constant counsellor to a succession of student bodies behind the scenes, was Herman A. Gruhn, now principal of Riverside's new Sierra Junior High.

Mr. Gruhn insists that there is nothing unique these days in providing opportunity for all students to take part. He merely began sooner—nearly fifteen years ago in fact. School assemblies, he believes, should serve as a showcase for bringing out the latent talents of everyone rather than a chosen few.

The Riverside principal agrees heartily with the current-day philosophy behind assembly programs which advocates their use as a laboratory where students may gain confidence in expressing themselves before large audiences.

Perhaps the modern approach to school assemblies in Riverside may be best undergrood by contrasting it with the old-fashioned idea of the purpose of such programs.

"An assembly used to be the place where outside performers came to entertain the student body. It was also used by school officials as a chance to make announcements of administrative policy or to give out information," points out Mr. Gruhn.

Dramatics had a heavy role in the old-fashioned assembly, but since plays and skits were usually presented by the drama department, only a few students taking courses in the subject had an opportunity to appear on the auditorium stage.

Mr. Patton is director of information services for the Riverside, California, City Schools.



Peirce auditorium in Newton has stair risers along front and sides of stage. This allows youngsters to get on and off stage easily, affords more intimacy between performers and audience and permits nice grouping for choral numbers.

Today's assembly program is an instrument of learning, wherein students help plan and participate in their programs.

Special assemblies with outside speakers may serve useful functions occasionally. In addition, programs presented by individual departments of the school or by the whole school such as campaign, installation and awards assemblies and the annual Christmas operetta program will always have their places.

But Principal Gruhn places major emphasis on the ideal of having every student appear on a program sometime each year, or three times during their junior high school career.

Schedule program by each group

He has found that the best way to achieve this objective is to split the student body into units and schedule each unit for one assembly. "These units can be selected in any number of ways," he declares, "At Sierra we feel it's easiest to assign an assembly to each home room unit."

Since the preparation of an interesting assembly requires a particular ability which every home room unit teacher may not possess, Mr. Gruhn chooses five instructors from the faculty who have had experience in dramatics or speech.

Each assembly teacher is responsible for one program every five weeks. Several weeks before a scheduled program, the assembly teacher holds his first meeting with the home room instructor and students to develop a performance theme.

"I feel every assembly should have some moral or theme as a basis," asserts Mr. Gruhn, "A variety of acts as such is meaningless. A central theme gives unity to a production and advances a worthy educational objective."

A typical program, for example, may be developed from a student's suggestion that Columbus Day be commemorated, since it falls in the same week as the scheduled assembly. Another student suggests a shipboard stage setting and the use of the theme, "Sail On."

"You can work out a terrific program from a simple idea like that," says Gruhn, "And from such a theme you can develop strength and character in the minds of today's youth to go on like Columbus in the face of adversity."

Having selected the theme, the assembly teacher and students begin appraising the individual talent which is available in the home room for the program.

"A boy who is a good speaker is chosen for narrator," suggests Gruhn, "and a girl accordionist and a boy who dances a jig can combine talents to present a dance at the pier as Columbus' ship sets sail."

The assembly teacher capitalizes throughout on the suggestions of the students in planning the script, and if there are students interested in writing he may even assign them portions of the script.

"But no program should ever be hastily written or thrown together," Gruhn notes. "The assembly teacher must put over the idea that an assembly is as important a part of the educational process as learning math or English."

In almost any class there will be a few shy students, reluctant to take prominent roles in the performance. Gruhn suggests that they be assigned a spot in a crowd scene or chorus. "Shy students have even been given the job of pulling the curtain and have later become interested in stagecraft," he recalls.

Once rehearsals for the assembly begin, other departments of the school are called into play. Art students may assist in designing the set. The speech department helps the performers perfect their microphone technique. The music department may be called upon to provide background.

Thus, by the time the production is ready for presentation it has been completely turned over to the students.

The student council conducts the assembly prelimi-

naries. If there are any announcements, a council member will make them. It is only an exceptional case when a teacher appears on the program.

Limit to half an hour

Mr. Gruhn believes that both announcements and the program that follows should be short and to the point, with a possible half-hour limit for most productions. Precision enhances the drama of a situation more than it detracts from it, he contends, and creates a greater impact on the audience.

"As a matter of fact," Gruhn observes, "the role of

the audience is just as important as that of the performers."

There is no stamping of feet or whistling. Students learn, by patient training and a few necessary regulations at the start, that being respectful need in no sense curb enthusiasm.

Again and again, Gruhn runs into graduates who recall a role in an assembly program as their most memorable junior high school experience. These graduates are happy to learn that things haven't changed, and they are hoping that their own sons and daughters will profit from equal opportunities.

auditorium programs

A Window into Class Activities

by ANN L. CALDWELL

W HAT DO WE DO about auditorium programs?" was the question raised at our first staff meeting by one of our new teachers.

The question was a natural one for new teachers to ask. For the most part, their previous experience had been in schools which had no assembly place at all, or a flat-floored all-purpose "cafe-audi-nasium" or a huge

and barren cavern in which the whole school is massed for "exercise."

The Peirce auditorium is small: 250 seats in a K-6 elementary school of 460 pupils. It has a sloping floor; its first three rows of chairs are the size for five and six-year-olds, and its stage is set off from the audience by four stair risers which span the entire front of the stage.

Our informal, inviting auditorium is one of the most popular rooms in our school. We like to think of it as a larger classroom where many groups of pupils, teachers and parents share and enjoy the learning experiences of others. It is also our guest room. Not only are our Peirce PTA meetings held here but community groups, often composed of non-parents, find our auditorium an ideal place for evening meetings.

Since auditorium programs are geared to the interests, experiences and attention span of children, we generally plan for the audience to fall within these groups: K-2, grades 3 and 4, and grades 5 and 6.

Formerly our assemblies were divided into two groups, primary and intermediate, but an increased enrollment and the strong turnout of parents for the Thanksgiving auditorium programs changed our pattern to ease the SRO.

The theme of our programs during the first semester is centered around special holidays. The teachers and the pupils within their group choose and plan their contributions to the assembly. An opportunity is given for all pupils to participate. During a planning period with Mrs. P., her kindergarten children volunteer what part they would like — plays, rhythms and songs. This group enjoys having two auditorium programs — one in December and the other in May. It is thrilling to observe their development of social poise in speaking and singing before a group.

A pupil-chairman checks the program to see if there

Miss Caldwell is principal of the Peirce School in Newton, Massachusetts.



is good balance. As one third grader remarked, "We would get bored if we just listened to songs all the time." Often each class selects its own chairman to announce the numbers. Classroom atmosphere is highly charged with purpose, interest and enthusiasm when auditorium programs are in the air. Before the day of the special program, the pupils practice in the auditorium.

Each grade performs

During the year each grade has the opportunity of putting on its own program which generally lasts about 30 minutes. Some groups use this as a culminating activity to a unit. Parents continue to talk about the fifth-grade Mexican program which cleverly showed the information, skills, understandings and attitudes gleaned through the study as brought out in the auditorium program. Parents, teachers and friends who had been to Mexico were most helpful as resource people (one father brought in his colored slides and our art consultant loaned her Mexican exhibit). A delighted mother wrote a note to the teacher saying she was thrilled with the manner in which geography, history and reading were worked into the study with art, music and dancing.

Opinions of the Peirce Poll indicate that the individual classroom assembly is greatly anticipated. Several youngsters will proudly say: "Did you know we are going to be giving our program?" The world is a stage to many of our youthful co-workers. I also think they enjoy shouldering the responsibility of their combined talents and skills. Interest is fever-high. Groups are busily engaged!

It is exciting to see the creative art work which suggests the theme appearing on the invitations: murals are growing into stage scenery, science experiments are being tested and demonstrated, wrinkles are being smoothed out of skits, the stage hands are making notes of properties needed and the colored lights are being tried out until the proper effect is found. High respect is manifested for everyone's contribution to this cooperative enterprise.

Audience participation

Frequently pupils within the audience are invited to participate during the program. Last May one of our classes had "Care of Pets" as a theme. Days before the program, notices appeared in the corridors asking "What kind of a pet have you?" "Does your pet know any tricks?" "Does your dog obey?"

When the big day arrived, the teacher and two pupils brought their French poodles to school. After the directions for having a dog heel were carefully explained and demonstrated, several of the pupils from the other grades were invited to come to the stage and try their skill.

The third graders decided to have their assembly center around Mother's Day. It was thrilling to see the mothers accept the invitation of going on-stage to join their children in singing one of their favorite songs.

Our auditorium is especially designed for audience participation. A unique construction feature is the continuous flight of four stairs along the front and sides of the stage, almost in the shape of a semi-circle. Pupils may sit in the auditorium enjoying the program until their turn comes and then quickly take their places on the stage. Our performers may also go on stage from the left or right hand doors off the corridors. The steps are also a tremendous help when teachers arrange groups for choral verse or have a closing number in which all grades participate. They are infinitely better and safer than the bleachers or wood blocks formerly used and do away with the last-minute arranging and moving of bleachers or blocks.

Schedule auditorium use

Since our auditorium is constantly used, our staff worked out a plan to simplify scheduling. A note is placed on the office bulletin board which reads something like this: "Our room will be using the auditorium today from 1:30 to 2:00 — M. J. Hall."

All of us enjoy unexpected surprises. Spontaneous auditorium programs are always welcome. Wednesday mornings our school orchestra meets in the auditorium for instructions. What a happy note is struck when Mr. Marotto suggests that maybe some of the classes would like to come to the auditorium to become better acquainted with some of the brass and wood instruments. Later the orchestra will play a favorite or a request number.

Or a bulletin board notice might read: "This afternoon our group finished reading *The Little Princess* Who Wouldn't Laugh. We are going to dramatize it for the second grade and thought you could come to the auditorium too." Matinees are a pleasure.

The fifth graders had been discussing bicycle safety. A local traffic officer was invited to speak to the group. He arrived with a film on How To Ride Your Bike, Since this was general and pertinent information for many pupils, the fifth graders and their teacher decided to invite the fourth and sixth grades.

It's fascinating to observe guests — little and big during a program. TV has surely made us a listening age. Teachers with their pupils set up standards for being a good audience and attitudes of good, courteous listeners are formed.

Invited guests have a variety of ways to show they enjoyed the program. Sometimes classes send thankyou notes, a committee from another room may verbally express their appreciation, and often books, victrola records and pictures which serve as a follow-up are brought in to be shared with the group.

When it is demonstrated that auditorium programs furnish additional avenues for learning, the cost of this enlarged classroom isn't questioned.

Incidentally, the public relations barometer rises with good will after an auditorium program.

McClure to Receive

Washington—Worth McClure will receive the 1957 American Education Award, announced Zephryn A. Marsh, president, Associated Exhibitors, NEA.

McClure, recently retired executive secretary of AASA, will receive an illuminated manuscript at the AASA convention in Atlantic City on February 20, 1957.

His name will be inscribed on the plaque at NEA headquarters bearing the names of former winners.

The American Education Award is presented each year to a man or woman who has made a contribution in the broad field of education.

Last year's citation went to Edward Tuttle, former executive secretary, National Association of School Boards. The 1955 award was won by Rev. Norman Vincent Peale.

Farley to Retire In December

Washington—Belmont Farley, director of press and radio relations for NEA since 1929, will retire next month, it was announced recently.

Dr. Farley came to NEA 27 years ago after 17 years of teaching and administrative experience in his native Missouri, and two years as director of publicity at Western State Teachers College, Kalamazoo, Mich.

He has seen NEA grow from a small and little known organization to one symbolic throughout America as a spokesman for education.

His colleagues attribute this to his tireless efforts to tell the story of NEA and of education to the American people.

Dr. Farley's pioneering efforts with educational radio set a guide for schoolmen everywhere.

He has been Washington correspondent for The School Execu-TIVE since 1944. In convention assembled:

ASBO Pays Tribute to Wolf at Annual Convention in Capital

Washington—Saddened by the news of their president's death, members of the Association of School Business Officials honored J. Wilbur Wolf, business manager, Omaha, Nebr., as they met for their 42nd annual convention October 7 to 11 at the Sheraton-Park Hotel here.

First Vice-President Andrew C. Hutson, Jr., assistant business manager, Knoxville, Tenn., read a tribute to Mr. Wolf at the opening session of the convention on Monday morning, Octo-

The 1956 asso president Wolf died suddenly on Saturday, September 29

The five-day gathering was the largest ever held by the Association, with over 1,800 school business managers, purchasing agents, building and grounds officials and professors of education joining in convention activities.

The conventionees, their numbers swelled by a record attendance of asbo wives, registered in six Washington hotels, viewed 125 booths where 86 manufacturers and distributors of school equipment and materials had their products on display, and joined in tours of the District of Columbia and neighboring Virginia.

On the working side of the picture, the school business officials attended general sessions, participated in section meetings and round-tables, took part in breakfasts held by their state associations, passed on a multitude of organization business, and attended the annual banquet on Wednesday evening, October 10.

The convention featured three leading speakers. Arthur S. Flemming, director, Office of Defense Mobilization, and a leader in the field of higher education, addressed the group at the first general session, Monday morning, October 8.

Speaking on Wednesday morning, October 10, was Capt. Richard B. Black, U. S. Naval Reserve and Antarctic expolrer.

J. Sinclair Armstrong, chairman, Securities and Exchange Commission, delivered the annual banquet address on Wednesday evening.

The convention was welcomed to Washington by David B. Karrick, member, Board of Commissioners, District of Columbia; Hobart M. Corning, superintendent of schools, District of Columbia, and J. R. Rackley, acting U. S. Commissioner of Education.

Section meetings held

On Monday afternoon, the conventionees attended section meetings on schoolhouse planning and construction and accounting and finance. On Wednesday, they participated in meetings covering purchasing and maintenance and operation.

Each section meeting covered not only its subject area, but was specially directed at business officials from communities of each of these population ranges: over 100,000, 30,000 to 100,000, and under 30,000 population.

Tuesday evening was roundtable night. Here, the business managers could participate in discussions of any of the following topics: transportation, insurance, personnel, maintenance and operation, new building construction, student activity, financial accounting and cafeterias.

The following state and regional

associations scheduled breakfasts for members from their areas during the five-day convention: New Jersey, Michigan, Illinois, New York, Southeastern region, California, Indiana, Minnesota and Texas.

At the banquet on Wednesday evening, held in the Grand Ballroom of the Sheraton-Park Hotel, ASBO members heard from Securities and Exchange Commission Chairman Armstrong.

He was introduced by Charles N. Zellers, local convention chairman and deputy superintendent of schools, Washington. Presiding at the banquet was First Vice President Hutson, who was elected president for 1957 Wednesday morning.

Edward G. Latch, pastor, Metropolitan Memorial Methodist Church, Washington, gave the invocation. Music was provided by the Federal Schoolmen's Club Melody Makers.

The annual exhibitors' entertainment held on Monday night featured a magic show, chorus line, singing and dancing teams and gags.

A full program of activities was planned for the ladies, who took part in city tours, luncheons, a fashion show and bridge party.

NEA Legislative Group Plans School Aid Fight

CHICAGO—The Legislative Commission of NEA will hold its regular quarterly meeting here December 6-7 to map plans for its campaign in the 85th Congress.

Heading the plans are efforts to fight again for passage of a bill for federal aid for school construction.

Immediately following this meeting, on December 8 and 9, federal relations committee chairmen from the 48 states will join Commission members for a similar conference.

These state leaders will help the Commission make final plans for federal legislative activities during the coming Congressional session.

Commission Chairman Irving Pearson, executive secretary of the Illinois Education Association, Springfield, will preside during both meetings.

Business Officials Register for Meeting



Members of the Association of School Business Officials line up to register for their 42nd annual convention at the Sheraton-Park Hotel in Washington (See story on page 78).

Office Signs Research Contracts With Two Schools; First of Kind

Washington—The first two contracts for cooperative educational research, ever adopted by the U. S. Office of Education were concluded recently, according to Marion B. Folsom.

The contracts, with Indiana University and with Vanderbilt University, will be financed from a recent appropriation of \$102 million for research by

colleges, universities and state agencies in the problems of education. Several other projects are under active consideration.

Mr. Folsom, Secretary of Health, Education, and Welfare, said he was pleased that the Office is starting the new program so quickly.

"Research can make a significant contribution in solving some of the problems that have beset schools and colleges for many years," he said.

Indiana University will undertake an 18-month research project to determine why capable high school students in the state of Indiana do not continue their schooling.

Wendell W. Wright, vice president, Indiana University, with Christian W. Jung, associate professor of education and director of the summer session, will head the Indiana research project.

Research will be undertaken to determine the reasons why only onefourth of the top 10 percent of Indiana's high school graduates in 1954-55 entered college. Studies will be made also to learn how many of the top 20 percent of the state's 1955-56 high school graduates did not continue their educational programs into college, and why.

Among the factors to receive consideration are problems of money, health, family obligations, lack of concern for education, distance from college, scholarship aid and junior college programs, as well as high school and college guidance efforts.

\$15,900 from U. S.

About \$15,900 in federal funds have been allocated by the Office for this project. Indiana University will bear one-third of the cost.

Under the direction of Albert J. Reiss, professor and chairman, Department of Sociology and Anthropology, Vanderbilt University will conduct a three-year study of causes of juvenile delinquency.

The study will be made among children in grades 7 through 11 in Nashville and Davidson County,

American Education Week



School systems throughout the nation are planning activities to observe American Education Week, November 11-17. Here is a window display by Namm-Loeser's department store in Brooklyn, New York, to mark Open School Week at nearby Brooklyn Technical High School during an earlier American Education Week (see story at right).

Tenn., with the cooperation of public, private and parochial schools and community agencies.

Information will be sought from teachers, parents, attendance officers, juvenile court officials and other citizens.

The Federal Government will spend \$49,060 on the Vanderbilt project.

Architects, Educators Study School Building Planning

Ann Arbor, Mich.—How can the architect and educator plan together for better school buildings?

This question and the problems it entails will be tackled by a conference of superintendents, board of education members and architects from Michigan to be held November 1 at the University of Michigan campus in Ann Arbor.

The meeting will concern itself with school problems from elementary grades through higher education.

AIA members attend

One feature will be the attendance of members of the School Committee of the American Institute of Architects, who will assist during clinic sessions.

Leading resource people from

Michigan schools and architectural firms will also participate in the clinics.

Speakers scheduled

Several distinguished speakers have been scheduled. They are Archibald Shaw, superintendent of schools, Scarsdale, N. Y.; John Lyon Reid, architect, San Francisco; William Caudill, architect, Bryan, Texas; Wilfred Clapp, assistant superintendent, School Organization and Plant, Michigan State Department of Public Instruction.

Also speaking are Frank Lopez, senior editor, *The Architectural Record*, and Arthur Rice, editor, *The Nation's Schools*,

Prominent chairmen

Serving as chairmen for conference sessions were Wells I. Bennett, dean, College of Architecture, University of Michigan; Eberle M. Smith, architect, Detroit; Samuel Brownell, superintendent of schools, Detroit and former U. S. Commissioner of Education, and Willard C. Olson, dean, School of Education, University of Michigan.

The conference is sponsored jointly by the University of Michigan, Wayne University, Michigan State University and the Michigan Department of Public Instruction.

AEW Called Chance For Talks, Action

In an official proclamation, President Eisenhower has declared November 11-17 American Education Week.

The President has called the observance a "fitting opportunity for the exchange of views upon educational problems and progress.

"This week of dedication to education and to the efforts and achievements of teachers, school and college administrators and others in this important area of public service is especially significant during this first year of appraisal, in terms of local community needs and required action, of the recommendations made by the White House Conference on Education."

American Education week has been held for over 30 years now as a time when the nation takes annual inventory of school needs and achievements. This year, the four national sponsors expect over 20 million Americans to attend open house and other functions connected with the Week's activities.

The sponsors are NEA, the American Legion, U. S. Office of Education and the National Congress of Parents and Teachers.

Over 50 different advertising pieces, brochures, movie and TV trailers, and other AEW materials are available from NEA, 1201 Sixteenth St., N. W., Washington.

Institute Begins Work with Study of Liberal Arts

NEW YORK — The newly-formed Institute for the Study of Higher Education at Teachers College, Columbia University will begin its work with a two-year survey of the status of the liberal arts in undergraduate professional schools and colleges, according to Earl J. McGrath, executive officer for the Institute.

Dr. McGrath, a former U. S. Commissioner of Education, told a press conference here last month that professional schools and colleges to be studied will include education, en-



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gineering, business administration, nursing, pharmacy, agriculture, public administration and journalism.

The two-year survey will be the first major work by the Institute. Formed as a national research center in July, the center is financed by a grant of \$375,000 from Carnegie Corporation for five years.

Dr. McGrath declared that the first

study will examine the status of liberal arts curriculums in these colleges themselves, as well as looking into these programs in professional schools.

There is "a pressing need for studies of the historical development of the liberal arts curriculum and a parallel historical analysis of the development of liberal arts education as an essential element in professional education," he declared.

In announcing the project, Dr.







Caswell

McGrath declared that "most professional and technical schools can well afford to give more time to liberal education," explaining that professional graduates face not only technical challenges, but social and cultural as well.

The former Commissioner of Education declared that there is an "overemphasis on specialized education in liberal arts colleges in this country."

Dr. McGrath summarized the leading problems facing higher education today as the need to prepare people for a complex society, and to meet the influx of students hitting colleges and universities today.

Hollis L. Caswell, president, Teachers College, declared that the new Institute will serve as a research center to study several typical problems arising from the expansion of higher education in the United States.

Adult Education Association Holds Meeting Nov. 10-12

ATLANTIC CITY, N. J.—Over 1,000 adult educators from all parts of the nation will meet here November 10-12 for the annual conference of the Adult Education Association.

Problems of attaining maturity, and the ways in which adult education can help, will set the theme for the meeting.

These will be studied by special interest groups, AEA sections and standing committees. These groups will report their findings to the general conference through a group of interpreters.

Addressing the conference will be John C. Whitehorn, psychiatrist, John Hopkins University School of Medicine and Edmund de S. Brunner, sociologist, Columbia University.

A summary of all discussions will



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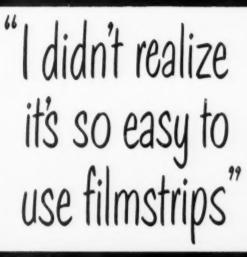
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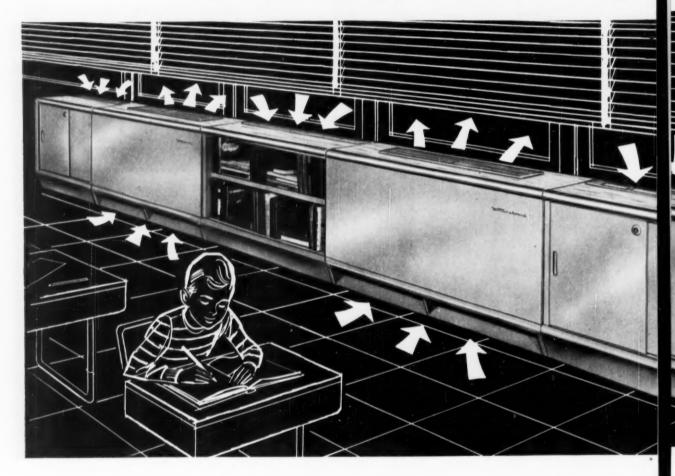
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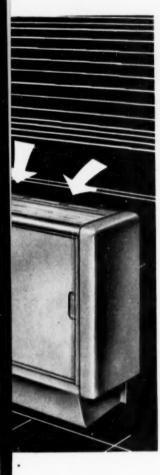
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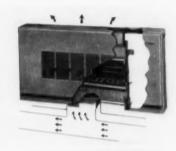
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be made by Hew Roberts, University of Iowa.

Kenneth D. Benne, Boston University and president of AEA, has called "the ability to think and act like real grown-ups . . . the life-or-death factor in America's future."

He lists the Soviet challenge, colonial rebellion, armaments races and automation as issues which require a mature people.

Over 35 million American adults have participated in educational activities during the past year, the Association reports.

Preceding the AEA conference will be the annual meetings of the National Association of Public School Adult Educators.

Better Adult Programs Studied by NAPSAE

ATLANTIC CITY, N. J.—Meeting here in early November for their fourth annual conference, members of the

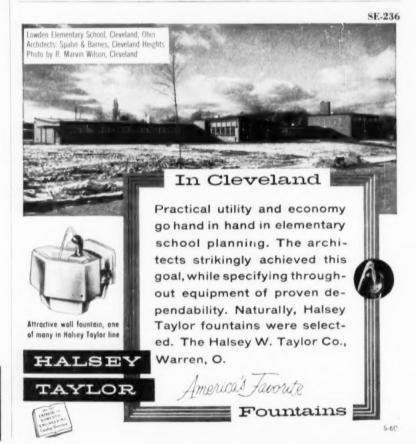
National Association of Public School Adult Educators will analyze their convention theme "How Can We Build Better Programs for the Adults in our Communities?" from two points of view.

These are the professional concern of the adult educator in the public school and his administrative responsibility in meeting the needs of the people.

Sixteen areas of concern to public school adult educators will be defined during pre-conference meetings attended by representatives of those states with divisions of adult education, members of state associations and city directors.

These 16 areas will be the basis for the same number of small discussion meetings to be held throughout the convention.

At the first general meeting of the convention, Ralph E. Crow, president of NAPSAE, will introduce the keynote speaker, Frederick E. Raubinger, New Jersey State Commissioner of Education, who will speak on the





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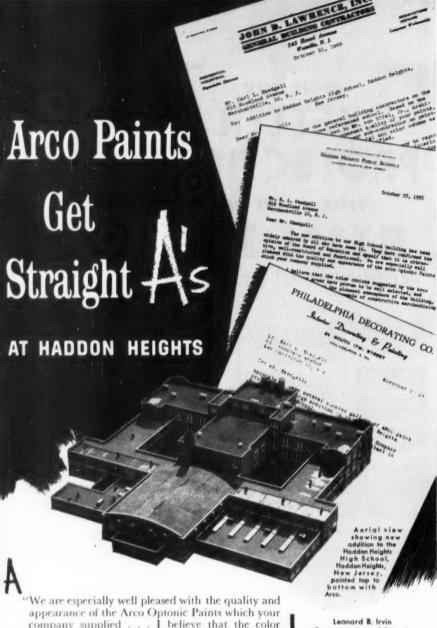
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conference theme. The second morning's session will concern itself with "A Broad Overview of All the Needs of All the People."

This will be carried out by a panel of five members and a moderator who will answer these questions: Who are the people? What are their needs?

Everett C. Preston, chairman of the convention and director, New Jersey Division of Adult Education, will be installed as new NAPSAE president

The members of the convention will be entertained by the New Jersey Association for Adult Education with its specially planned Eastern Seaboard Night program.

Educational TV Center To Produce Shows in NYC

NEW YORK-An educational television production center will be in operation here by February 1 of next year, it was announced recently.

The Metropolitan Educational Television Association, Inc. will produce programs for use in New York City and over educational and possibly commercial stations throughout the nation.

The center will operate a fullyequipped television studio and supporting facilities to produce and record programs, according to Caroll V. Newsom, chairman of the board of trustees, and president, New York University.

At first the center will produce kinescopes. Once suitable program formats have been devised, Dr. Newsom reports, the center may begin transmitting its own shows as a fulltime educational television station.

Right now, META is concentrating on building its own studio, for producing packaged programs, according to E. A. Hungerford, executive director.

Potential customers for these kinescopes are educational television and





Each new SINGER* Combination

Sewing and Cutting Table holds 2 full-sized SINGER* Sewing Machine heads and provides work

Teachers and students, supervisors and administrators agree... The SINGER Combination Table has something for everyone!

Teachers like the SINGER Combination Tables because they provide a complete sewing unit in one classroom item. They eliminate moving from machines to separate cutting tables . . . avoid bottlenecks . . . maintain order.

Students like the deep openings that accommodate their standard tote trays, and the 2 smooth-sliding drawers for handy storage. They appreciate the ample space to the left of the needle for full sweep of the garment being made.

Supervisors and Principals like the way the SINGER Combination Tables adapt to a variety of classroom arrangements -wall alignments, island formations, U formations. And they like the modern, straight-line styling of the table, available in beautiful blond or dark wood to brighten up any classroom.

Administrators like the economy features of the SINGER Combination Tables, particularly the way they adapt to conventional study classes.

The SINGER Combination Table is available at the special school discount, with any SINGER heads you prefer-Straight-Needle, Slant-Needle* or the new Swing-Needle* Automatic.

For a free folder, giving specifications and suggested classroom layouts, just mail this coupon.

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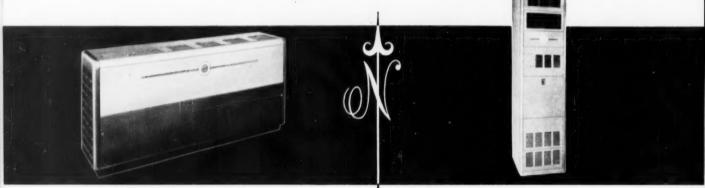
Educational Dept., 149 Broadway, N.Y. 6, N.Y.

Please send folder giving details about Combination Sewing and Cutting Table, and showing suggested classroom layouts.

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There is a HERMAN NELSON to Give You More Classroom



HOT WATER OR STEAM

Herman Nelson Unit Ventilators with patented DRAFT|STOP control downdrafts without adding to the heat load, provide ideal classroom climates. Proved in thousands of schools using either hot water or steam. Hot water systems provide for Wall-Hung, Cobinet-Base, or Recessed-Edge piping.

GAS

New UNIvent Gas School Ventilator provides all the health and comfort features of the DRAFT|STOP system in a completely self-contained unit. Easily and quickly installed, this unit is ideal for temporary or short-term use buildings. It also has obvious advantages where natural gas is abundant.

MILD CLIMATES

AMERVENT built especially for schools in mild climate areas, provides fresh air cooling, heating and ventilating within the nominal cost of heating alone. Schools do not pay for unneeded heating capacity, and gain super-cooling which brings in 30% more fresh air during hot weather.

AIR CONDITIONING

The HerNel-Cool unit provides mechanical cooling, heating, ventilating or natural cooling as required. Thoroughly tested in hot, humid climates, HerNel-Cool units have exceeded every requirement. Units can be installed now where needed most and the system extended at any later time.



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Herman Nelson

Unit Specifically Designed Comfort per Dollar

Complete line covers hot water, steam, gas, air conditioning and mild climate requirements

Herman Nelson now offers a line from which you can select the ideal unit for meeting any school's requirements! The cooling, heating, ventilating system can be "tailored" to provide true classroom comfort in the most economical and most practical way.

In temperate or cold climates, the Herman Nelson Unit Ventilator—operating with either circulating high temperature hot water or steam—has proved its superiority in thousands of schools. The patented DRAFT STOP system has given a new meaning to "classroom comfort" as it controls down drafts and automatically provides a constant supply of properly heated or cool fresh air.

Now the UNIvent Gas School Ventilator is added to the famous DRAFT|STOP family. For certain new schools (or remodeled old ones) its advantages are apparent. It is completely self-contained and is ideal for temporary or short-term use buildings. It also has obvious advantages where natural gas is abundant. The UNIvent Gas School Ventilator is easily and rapidly installed and is approved by AGA for use with natural, mixed, manufactured or LP gas.

Hot weather air conditioning in schools is becoming more important every day. **HerNel-Cool** units offer an economical and practical solution to this problem. Most of the year they provide heat, ventilation or natural cooling (with outside air) as the room requires. In hot weather, the units switch automatically to mechanical cooling with chilled water circulating in the same piping that carries hot water during cold weather.

Schools in mild climates have an **increased** cooling and ventilating problem and a **decreased** heating problem. The Herman Nelson **AMERVENT** was designed just for them. These schools can now enjoy **all** the essentials for classroom comfort—cooling, heating and ventilating—without paying for the excess heating capacity required where frigid winter temperatures are encountered.

Flexibility will always be important to Herman Nelson—for there is no "one best" system to provide for heating, ventilating and cooling classrooms. The health and comfort of pupils and teachers come first. The design, structure and location of each school will indicate the most economical and practical system to achieve that ideal classroom atmosphere.

Would you like more information? Ask your Herman Nelson representative or write to Herman Nelson Products, American Air Filter Company, Inc., Louisville 8, Kentucky.



American Air Filter Company, Inc., System of Classroom Cooling, Heating and Ventilating



Herman Nelson



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AAF Dust Contro



Herman Nelson Vertical Unit Heaters

SPOTLIGHT_

commercial stations; local city schools for their instructional program; and the Educational TV and Radio Center in Ann Arbor, Mich., which secures programs for release to educational stations throughout the country, Mr. Hungerford explained.

META was chartered in June, 1954 "to furnish, prepare and present non-profit and non-commercial educational television and radio service to Metropolitan New York, Westchester, Nassau and Suffolk Counties."

Section 236 of the State Education Law provides for the formation of such groups for similar purposes. META is therefore the organization designated by the State Board of Regents as the organization to head educational television activity in the New York City area. Ford Foundation Encourages Economics, Library Research

New York—A program to increase the number of college and university teachers of economics and business administration and to encourage research in these fields was announced recently by The Ford Foundation. Under an appropriation of \$570,000, 94 fellowships have been awarded to graduate students and teachers for work at 35 American universities during the 1956-57 academic year.

The awards fall into three categories: predoctoral fellowships, dissertation fellowships and faculty research fellowships. They are designed to facilitate the continuance of graduate work by promising students and to enhance the attractiveness of the teaching profession in the economics and business administration fields.

The pre-doctoral fellowships, of which there were 35 recipients, are intended to encourage outstanding scholars holding Master of Business Administration degrees to extend their training to doctoral work in preparation for teaching and research careers.

Libraries' acute problems also came under Ford Foundation scrutiny. A \$5 million grant from the foundation has established the Council on Library Resources, Inc., a non-profit organization to support research and development of techniques and mechanisms in this area.

The council is designed to act as the initiator and coordinator of developments to improve the extent and use of library resources and services, rather than as a source of funds for particular libraries or for the acquisition and dissemination of particular collections, it was announced.

Use of Ed-TV Increases In Florida and Iowa

Ann Arbor, Mich.—Mounting educational television activity is reported in two widely separated states—Florida and Iowa.

The Independent School District of Des Moines, Ia., has announced that a technical high school will provide space to accommodate television facilities.

The board of education has re-



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Designed by Henry Glass

Patents Pending FLEETWOOD FURNITURE COMPANY, Grand Haven, Michigan

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solved to apply to the Federal Communications Commission for a frequency on which to operate an educational TV station. It will be some time before the station can be established, but activation of the educational channel is virtually assured.

Governor LeRoy Collins of Florida has appointed a committee to make a thorough study of the state's immediate and long-range educational television needs. The committee has also been charged with the responsibility to prepare a coordinated statewide plan for taking fullest advantage of the educational channels which have been allotted to the state.

Florida has had one educational station, WTHS-TV in Miami, on the air for a year.

Vocational Education Will Miss Sen. George

WASHINGTON-When Congress reconvenes in January, one of vocational education's most active supporters will be missing. He is Sen. Walter F. George (D-Ga.), also known as "the father of vocational education."

During Senate service since 1922, his name was attached to four major George - Reed educational acts: (1929); George-Elzy (1934); George-Deen (1936); and George-Barden (1946). Senator George led vigorous fights for annual vocational program appropriations.

Federal Publications Analyze Programs

WASHINGTON-More federal documents on education will come off the government printing presses this year than last, it was announced recently.

One of these, from the U. S. Office of Education, will report on work experience experiments now being conducted in public schools.

Entitled Work Experience in Secondary Schools, 1955-1956, it was written by DeWitt Hunt, now resigned, and describes several types of experiments.

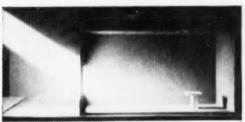
These are: those under which pupils work in school, with or without



THERE'S MORE TO daylight THAN MEETS THE EYE



"Smoke Box" photo-window glazed with clear glass



Diffusing glass in smoke bo



Directional diffusing glass in smoke box.

Stop Glare and Heat with Light Diffusing Glass

Like other natural resources daylight needs to be controlled to be of greatest benefit. "Raw" daylight seldom meets specific lighting needs, since it contains a host of unwanted factors that cause discomfort and inefficiency. Obtain the results you want by specifying a glass "visioneered" to meet your requirements.

Good daylighting can be achieved with a handsome, modern, diffusing pattern which disperses softened light deep into interiors, provides comfortable, even illumination without harsh glare and sharp contrasts that cause costly eye fatigue. And if excess heat is a problem, keep interiors more comfortable with Mississippi Coolite, heat absorbing, glare reducing glass, which absorbs up to 50% of solar heat rays.

In your new building or remodeling projects gain all the benefits of natural light without the drawbacks. Control "raw" daylight by specifying Mississippi Glass. Available everywhere in a wide variety of patterns and surface finishes, wired and unwired, all "visioneered" to solve your daylighting problems.

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Why Faucets Leak

Faucet washers, when fastened with TOO LONG or SHORT screws — as in "9 out of 10" replacements by best mechanics — quickly work loose, destroy themselves! Note Hylon plug - - locks

"SEXAUER" finds the answer-after 34 years research

Now, NEW Pat'd. Sexauer" SELF-LOCK screws, with expanding NYLON PLUG imbedded in the threads, fasten and lock at correct depths AUTO-MATICALLY, hold faucet washer firmly. Made of rust and corrosion resisting Monel, heads won't twist off, screw slots won't distort; they



resists closing squeeze

be used over and over NEW Pat'd. When installed with

"Sexauer" EASY-TITE faucet washers, this combination outlasts past faucet

EASY-TITES are made of super-tough, pliable duPont compound (neither rubber nor fibre) to withstand super-hot water and make tight even on worn, corroded seats. They are further reinforced with a vulcanized layer of Fiberglas to resist distortion and splitting from shut-off squeeze.

The hidden costs of faucet leaks!

As authenticated by Hackensack, N. J. As authenticated by Hackensack, N. J. Water Co. and American Gas Association, stopping just ONE pin-hole (1/32") size leak can reduce water waste 8,000 gal. monthly. Stopping a hot water faucet "drip" can result in water and fuel saving of over \$7.58 QUARTERLY—plus material and labor

costs and costly fixture replacements! That's why thousands of Government Agencies, Housing Projects, Hospitals, Colleges, Schools, Manufacturers, Hotels, Realties and Utilities --look to "SEXAUER" Technicians skilled in plumbing maintenance knowskilled in plumbing maintenance know-how. They are trained to determine stock levels thru complete SURVEYS of sctual fixtures in service and to in-stall stock systems that avoid over-stocking and shortages.

NEW SELF-LOCK SCREWS and EASY-

TITE faucet washers are just part of the "SEXAUER" line of over 3000 TRIPLE-WEAR plumbing repair parts and Pat'd, precision tools.

A "SEXAUER" Technician in your vicinity will make our NEW, 126 pg. Catalog H available and gladly consult with you regarding your plumbing maintenance problems without obligation. Write today!

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salary; those for which pupils work in the community, with or without pay: those which have a vocational objective or a general educational aim; those conducted in the junior and senior high schools.

The principle that "the work station must be an extension of the classroom," is one of those suggested for operating work experience programs.

The U.S. publications budget for the next year calls for \$230,606, as against \$115,000 allotted for the past 12-month period.

Among forthcoming publications included in the increased budget are Curriculum Programs in High School English, Education in the Soviet Union and Cost of Attending College.

Unfilled Job Department

WASHINGTON-The Office of Education is searching for a qualified person to accept the position of federal specialist in industrial arts at a salary of \$8,990 per year.

Who Pays for Education?

WASHINGTON-The cost of education is spread unevenly among the three levels of government, a recent study shows.

1955-56 figures were as follows: from local property taxes, 58.1 percent; from state taxes, 37.1 percent; and from federal taxes, 4.5 percent.

Political Platforms Make Education Promises

Washington-Despite the verbiage of the Democratic and Republican planks on education, there are no striking differences between them. One major area of agreement is: the need for more classrooms.

Republicans list these as their achievements since 1952: creation of the Department of Health, Education and Welfare; launching the White House Conference on Education; formation of the President's Committee on Education Beyond the High School

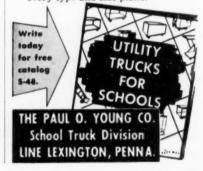
Democrats take credit only for authorizing maximum funds for vocational education during 1956. But





Model D-250 Upright Piano Carrier

- · YOUNG Carriers move pianos without tilt or strain. Even with one man, personal safety to the mover is assured.
- · Pianos moved without carriers soon go out of tune because of jars and stress. YOUNG'S carriers protect pianos completely.
- The 5" ball-bearing swivel casters used on YOUNG Piano Carriers have thick cushion rubber treads safe for finest floors.
- · Pianos can remain permanently on carriers. Playing is in no way affected. There is a carrier to fit every type and size piano.



This is SEAL-O-SAN . in action? After a season on the new floor, Carl Buffenbarger, Superintendent of Maintenance, reports the Seal-O-San finish has performed satisfactorily in every way. Columbus High School's basketball team found the floor to its liking and showed its approval by winning every game it has played on the floor.

Architect, McGuire and Shook, Indianapolis

A lively, resilient floor at Columbus, Ind., High School permits fast action, safe play on the court!

ACTION is the word for Seal-O-San! For there lies the difference between an ordinary sealer and the right sealer for your gym floor.

All gym floors must be designed for ACTION . . . and the activities on those floors should be safe for the youngsters. Basketball is among the fastest sports played on the gym floor and to be played well the players must have confidence that pivots, fast breaks and all tricky footwork are safe, steady, sure . . otherwise well organized team play becomes pure chaos with each team member looking out for his own skin.

FOUND SEAL-O-SAN BEST IN 17 YEARS' EXPERIENCE

"For the past IT vears I have been connected with or associated with school business in Indiana either as a coach or as a Superintendent of Manitenance and Supplies and I would like to say that during that time I have used several types of gym finishes. I am convinced that the Seal-O-San gym finish is one of the better if not the best gym finishes. I have used It is very easily maintained plus the fact that it is non-slippery and glare free."

Carl Buffenbarger

Superintendent of Maintenance and Supplies



All modern sealers provide a surface that is relatively easy to maintain. All to a degree, enhance the beauty of the wood. All are sold on performance. But, only Seal-O-San can give you the assurance of a really lively, yet safe floor for all types of fast action under nearly any condition.

Thirty years of favorable experience prove this fact. If you have a problem floor, ask your neighboring coach who has used Seal-O-San. He is our best salesman.

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GYM FLOOR FINISH

Huntington 👄 Laboratories

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Philadelphia 35, Pa.

Toronto 2, Ontario

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they promise, in addition to "assisting states and local communities to build schools," action for area vocational schools; health and safety measures for all children; better educational opportunities for migratory children; training programs for teachers of science and of exceptional children; and an expanded international educational exchange program.

Action is promised by the GOP only on federal aid for school construction. In line with former philosophy, their plank would "encourage increased state and local efforts to building more classrooms."

Southern State Legislators Discuss Higher Education

New Orleans, La.—Legislative leaders from 16 southern states met here September 13-15 to discuss mutual problems and opportunities in higher education, reports Robert C. Anderson, acting director of the Southern Regional Education Board.

Such diverse topics as atomic en-

ergy, mental health and interstate educational arrangements occupied the 150 state senators and representatives attending the fifth annual Legislative Work Conference on Regional Education.

The work conference to pool the region's higher education facilities was sponsored by the Southern Regional Education Board, an agency created seven years ago by the Southern Governors' Conference.

School Patrols Illegal?

LARAMIE, Wyo. — According to Robert R. Hamilton, dean, University of Wyoming Law School and an authority on school law, school patrols are illegal.

He argues that when school children guard their friends at street crossings, they are in effect patrolling the streets as agents of the board of education. However, boards of education have no authority over street protection. Such authority resides in the police department only, Dean Hamilton concludes.

Apply to College as HS Junior

College officials now recommend that high school students apply for admission to college at the end of their junior year.

The traditional time to file applications had been in January of the senior year.

Preventive Mental Health Proven Practical

NEW YORK—The New York School for Nursery Years, has found, in its three-year study of case-work services in nurseries, that preventive mental health practice with preschool children is practical.

The study is being conducted under a grant from the Field Foundation

A preliminary report issued recently by the school, covering the first two years of the project, indicates that one out of four typical preschool children has some mild behavior difficulty that needs attention in order to prevent future problems.

In the "overwhelming majority" of instances a trained caseworker can





Here's a beautiful new design that will bring you everything you've ever looked for in good classroom seating. It's Rowles new MODERNAIRE Series . . . prize winning strength and unmatched durability. Streamlined . . . yet, invitingly comfortable. A big, adjustable writing surface and the smooth curved seat and gracefully arched back, assure relaxing comfort . . . all day long. The MODERNAIRE Desk belongs in your classrooms . . .; it's your best buy in classroom seating . . . anywhere.

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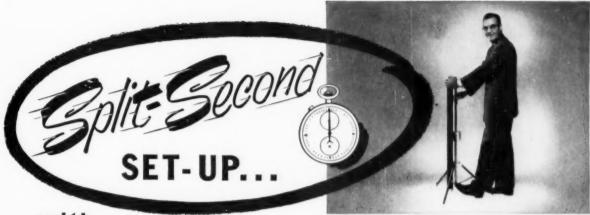






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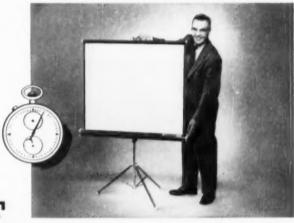
In just five seconds—yes, only five fleeting seconds -you can set up a portable Radiant Tripod Screen. This amazingly easy quick set-up is made possible by Radiant's convenient, no-stoop "touch of the toe" automatic leg lock and other Radiant design features. AND, this is only one of many Radiant advantages that have made Radiant the world's largest selling screens.





There is a Radiant Screen for every projection need, from the Jiffy measuring only 30" x 30" to huge CinemaScope-type screens measuring up to 30 feet. This includes table, tripod, wall and wall-ceiling screens in a wide range of sizes. Send today for the new Radiant Screen Guide, which tells you how to select the type of screens that best fills your needs.





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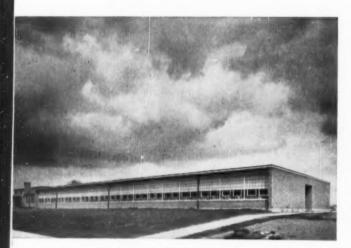
there is a Radiant Screen for Every need

Available only from authorized Radiant audio-visual dealers



NEW Rolling Fields Elementary School, Kettering, Ohio

These new and old schools get benefits



Rolling Fields Elementary School, Kettering, Ohio. Architect: Rial T. Parrish, Dayton, Ohio; Superintendent: Dwight L. Barns

An attractive, functional 22 classroom school, built at low cost—\$8.63 per square foot. Extensive use of PC Glass Blocks made possible not only savings in original construction costs, but will produce savings in annual operating and maintenance costs as well.

Reasons for the extensive use of glass blocks in both new school construction and school modernization are amply documented in the two schools featured here.

Let's look first at the new Rolling Fields Elementary School, Kettering, Ohio, shown on this page. Here, the requirements from the school planners called for minimum construction costs without sacrificing proper classroom environment.

One big answer to both needs was the extensive use of PC Glass Blocks. Green-tinted Suntrol Blocks were installed to control daylight inside the classrooms scientifically, and to reduce glare. Costly glare-reducing devices were eliminated. Under the Suntrol Blocks, vision-permitting Vue Blocks combined with ventilator units, add still more savings—approximately \$8,500 over the more expensive vision strip construction. Savings in school operating costs figure in, too. The high insulation value of the glass block panels installed in the classroom walls permitted the designers to use a smaller boiler size which contributes to lower heating costs. The per-square-foot construction costs for this school—\$8.63.



REMODELED Sacred Heart School, Toledo, Ohio

at low cost with PC Glass Blocks

At Sacred Heart School, Toledo, Ohio, the big question facing Reverend Alfred J. Metzger, Pastor, was-"Shall we build a new school, or remodel the old one?" Part of the decision in favor of remodeling involved a satisfactory answer to improving classroom lighting, eliminating existing window maintenance problems, reducing heating costs, and dressing up the exterior. Investigation convinced the planners that functional glass blocks would meet all these needs. This, coupled with the fact that complete remodeling would cost less than half the cost of an equivalent new structure, brought in the vote for modernization. PC functional Glass Blocks have changed dark classrooms into bright, cheerful rooms with controlled daylighting that bans glare and shadows. Heating costs have been reduced. Window maintenance is a headache of the past. And the glass blocks helped give the exterior an architectural "facelifting" that took years off the age of the school.

Our booklet, The 3 R's and Daylighting, tells more of this benefit story. Write for a copy. Pittsburgh Corning Corporation, Dept. 1160, One Gateway Center, Pittsburgh 22, Pa. In Canada: 57 Bloor St. West, Toronto, Ont.





Sacred Heart School, Toledo, Ohio, Pastor; Rev. Alfred J. Metzger "Before" and "After" photographs showing improved exterior. PC Glass Blocks, installed with aluminum ventilator units, eliminate rotting and rusting of sash, painting, and breakage replacement. Washing is seldom necessary and can be done quickly with a hose.



PC Glass Blocks

Also manufacturers of FOAMGLAS® insulation



American Seating Bodiform Chairs offer greater use-value!



Gray-iron standards won't break, bend or dent; sturdy and quiet. Middles have turned-in feet, eliminating stumbling hazard. In the first place, spring-arch seat construction, backs with body-fitting contours, assure matchless comfort through years of hard use. These restful, attractive chairs are available in a wide range of styles and colors. Because they are upholstered, Bodiforms are treated with greater care by students—insuring longer life, less maintenance.

More passing room

Then, too, American Seating Bodform full-upholstered auditorium chairs feature silent, uniform, ¾-safetyfold seat action that causes the seat to fold automatically when occupant rises. This allows more room for passing, easier housekeeping.

Improve acoustics

And upholstered seats and backs improve acoustics. For example, in a half-filled auditorium, the upholstery compensates for any empty seats, thus aiding sound reception.

Most complete line

American Seating offers the most complete line of school furniture and auditorium chairs on the market, with the greatest use-values in every price class. More schools buy American Seating products than any other make—consequently, more students go to school to the comfort and good posture of American Seating equipment than to any other type or make. Write for our newest literature.



All models available with tablet-arms, variety of aisle standards. Rigid in use, tablet-arms fold automatically when occupant rises.

Branch Offices and Distributors in Principal Cities, Manufacturers of School, Auditorium, Theatre, Church, Stadium, Transportation Seating, and Folding Chairs.

SPOTLIGHT

help clear up the difficulty either through guidance to parents and teachers or through direct work with the child.

The Field Foundation has extended its grant to cover the next school year, with emphasis on unilization of the nursery school in the training of social work students. The project was developed jointly by the New York School for Nursery Years and the New York School of Social Work in 1954.

Behavior difficulties encountered among children aged two through five cover almost every area of a child's functioning, according to the report. They are considered "danger signals" when they are of unusual intensity or duration.

Among them are sleeping disturbances, nightmares, exaggerated fears, extreme dependency on adults, problems in toilet training, excessive orderliness, excessive shyness, reluctance to learn anything new, excessive daydreaming, very short attention span, restlessness, temper tantrums, speech disturbances, aggressive or destructive behavior.

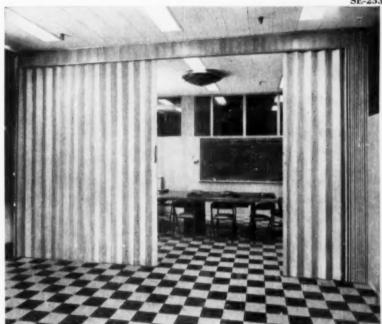
Often there is a considerable difference between behavior patterns at home and at school, according to the report.

"Certain children who were problems to their parents because of their food habits exhibited no difficulties while eating lunch at school and actually seemed to enjoy the same foods that they rejected at home.

"There were also situations where children observed to be very aggressive in the class were reported by their parents as well-mannered, quiet and showing no signs of aggression at home."

Parents usually come to teachers with their concerns about children's behavior, and experienced teachers can often help. When necessary, teachers seek help from the caseworker and sometimes refer the parent to her for additional counseling.

The study has shown that in a nursery school a new way of func-



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tioning has developed for the caseworker. A large part of her work is in the classrooms, getting to know the children and working closely with teachers.

Carnegie Makes Grant to U. of Ill. for Math Study

NEW YORK—A Carnegie Corporation grant of \$277,000 to the University of Illinois will be utilized to further new approaches to the study and teaching of high school mathematics.

Specifically, the sum will be used by the Committee on School Mathematics of the university to advance its work of devising a new mathematics course for the four high school years, to prepare classroom materials and teachers' manuals, and to conduct training courses on new teaching techniques.

The Illinois project, which the university itself has been developing for more than four years, has the goal of bringing into high school math courses some of the insights and subject matter developed in modern mathematics for the modern world of nuclear energy and electronic computation and controls. Math will be treated as an integrated body rather than as a group of isolated courses.

Committee in charge

The program is directed by a committee composed of representatives of the Colleges of Education, Engineering, and Liberal Arts and Sciences at Illinois.

Its staff is already experimenting with curriculum changes for high school freshman, sophomore and junior classes. It is testing new materials in five different high schools in Illinois and Missouri, with the cooperation of fourteen teachers and almost 500 students.

John W. Gardner, president of Carnegie Corporation, hailed the work of the Illinois group as "a substantial attack on one of our most critical educational problems."

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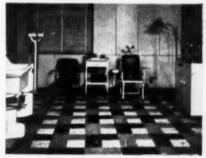
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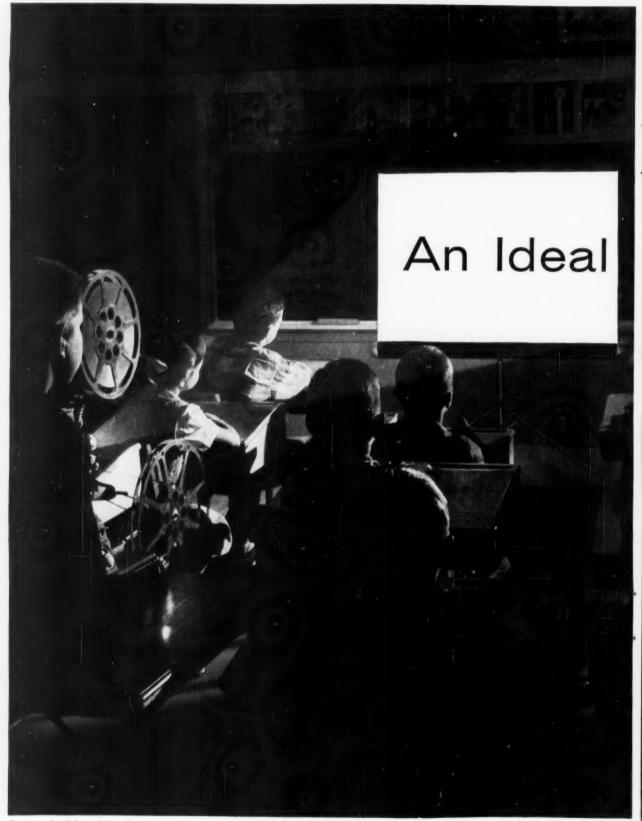
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In addition, the Schoolmaster System includes an indicator panel for the principal's office which gives a fingertip report on all room temperatures.

The Schoolmaster is an exclusive Honeywell development, designed for any school—new or old. No

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For complete information, call your local Honeywell office, or write to Honeywell, Dept. SN-11-07, Minneapolis 8, Minnesota.

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year, he pointed out, as fewer and fewer students enter college with adequate preparation in mathematics.

"The problem must be dealt with at its source," Gardner declared, citing recent studies, including one just published by the Educational Testing Service under a Carnegie grant, which describe most high school mathematics curricula and teaching as inadequate.

Future Teachers Group Prepares Graphic Materials

Washington — Future Teachers of America staff members have prepared a series of new materials as a part of the service to FTA college chapters and to junior and senior high school clubs.

For college chapters there is a poster entitled Proudly Professional, a folder You and Your Professional Organizations, the Future Teacher Newsletter and the FTA Handbook.

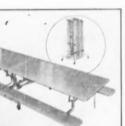
For high school clubs there is a poster which asks Could You Be the Teacher He Will Never Forget?, a 16-page illustrated booklet entitled Invitation to Teaching, a folder-brochure about FTA clubs and a reprint of FTA songs.

All of the items are free to FTA members and may be ordered from the National Commission on Teacher Education and Professional Standards, 1201 Sixteenth Street, N. W., Washington 6.

Meanwhile, Fred Reed, a junior at Hamline University, St. Paul, Minn., has been elected president of the National Association of Future Teachers of America (NAFTA), which now has more than 600 chapters on college and university campuses across the nation. He is a former president of the Minnesota Future Teachers of America.

The number of college chapters which make up NAFTA has grown from 14 to over 600 since the organization's establishment in 1937 and individual memberships have jumped from 278 to over 35,000.

NAFTA headquarters is in the Educational Center of the National Education Association in Washington, D. C. It is a unit of the NEA Commission on Teacher Education and Professional Standards.







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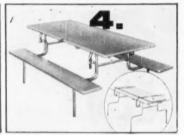
less area with increased convenience and lower costs. All will give you important savings for years to come because of their rugged structural quality. All have been newly styled for the 1956-57 school year.

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Rackley to Penn State as Dean

UNIVERSITY PARK, Pa.—John Ralph Rackley, deputy commissioner in the U. S. Office of Education, was appointed recently dean of the College of Education at Pennsylvania State University.

Dr. Rackley has succeeded Marion R. Traube who retired with emeritus rank after 19 years of service at Penn State.

Atlanta Schools Adopt Reorganization Program

ATLANTA, GA.—A complete reorganization program has begun in the Atlanta public schools as a result of a recent investigation by a study council of prominent American educational leaders and a local citizens advisory committee. As adopted by the board of education, the school system has been divided into six

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SPOTLIGHT

areas of supervision, necessitated by increased enrollment and the annexation of 18,000 children from the county system.

In full control of each area is an area superintendent who works directly with the deputy superintendent and through him with the superintendent of schools. Resource teachers, experts in the field of instruction, will be added to each area superintendent's staff.

A series of committees and councils, established at system, area and school levels, will aid in disseminating information, identifying and studying problems and evaluating current activities.

Recommendations were made also for better maintenance and operation of school plants, for more instructional supplies for students and for raises in teachers' salaries.

Atlanta's need for 54 more elementary schools and nine additional high schools by 1960, to assure every child a seat and a full school day, has been made public knowledge. Enabling legislation has been passed and awaits authorization by the people.

Improvement of instruction to better educate Atlanta's school children has been the purpose of these recommendations.

With a shortage of 787 classrooms and 20,000 youngsters on double session or in temporary quarters, the present staff will have to be increased along with facilities.

The study council which reviewed Atlanta's public school problems was headed by John E. Ivey, Jr., director, Southern Regional Education Board, as chairman.

Members included Walter A. Anderson, professor of education and chairman, Department of Administration and Supervision, School of Education, New York University; Daniel R. Davies, professor of education and executive officer, Division of Administration and Guidance, Teachers College, Columbia University; John

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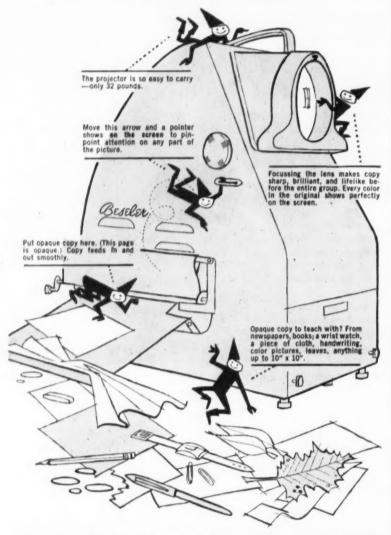
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H. Fischer, superintendent of schools, Baltimore; R. L. Johns, professor of school administration, University of Florida; and Herold C. Hunt, Eliot professor of education, Harvard University, and retiring Under Secretary of Health, Education and Welfare.

NEA Appoints Lambert Director of Research

WASHINGTON—Sam M. Lambert has been named to direct the Research Division of NEA.

The appointment was made by the NEA executive committee and announced by William G. Carr, executive secretary of the association.

Dr. Lambert succeds Frank W. Hubbard who had been appointed NEA assistant executive secretary for information services last February.

Public Health Assn. Holds 84th Annual Meeting

ATLANTIC CITY, N. J.—Reports on many aspects of public school health programs will be presented before the annual meeting of the American Public Health Association and meetings of 40 related organizations in Convention Hall here, from November 12 through 16.

More than 4,000 public health specialists from all parts of the free world, representing governmental and voluntary health organizations as well as private institutions and practice, are expected to attend.

According to Reginald M. Atwater, executive secretary of APHA, the following papers in the field of school health are among those to be delivered:

—"Audiometric Testing of Hearing of School Children (an eight-year study) . . . Including Prognostic Implications and Relationship to Academic Retardation". by Samuel M. Wishik, M.D., professor of maternal and child health, and Elizabeth R. Kramm, research associate, Graduate School of Public Health, University of Pittsburgh, and Elvira Koch, R.N., school nurse, School District of Reading, Pa.;

-"The School Health Program in Puerto Rico" by Virginia T. deBe-



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laval, health education supervisor, Dept. of Education, Hato Rey, P. R.; —"Cooperation of the Nurse and Teacher in the Health Program in Small Communities" by Mary B. Rappaport, R.N., health teaching supervisor, State Dept. of Education, Albany, N.Y.;

—"Psychiatry Helps Personnel to Help Children" by William F. Stark, M.D., psychiatrist, Washington, D.C.; —"Evaluation of the School Health Instruction Program" by John H. Shaw, Ed.D., chairman of teacher training in physical education, Syracuse University, Syracuse, N. Y.

An opening day symposium will focus on the question: "How are we doing in public health?" Subsequent sessions will analyze the effectiveness of current international, national, state and local health programs.

The American Public Health Association, with headquarters at 1790

Broadway, N. Y., is the largest professional organization of public health workers in the world, with more than 12,000 members.

The American School Health Association is meeting simultaneously.

Store Window Becomes Teacher Recruitment Center

Point Pleasant, W. Va.—In order to sharpen the public's awareness of the teacher shortage and encourage young people to enter the profession, posters were displayed in store windows here. The novel idea for such a display was suggested at a meeting of Alpha Chapter of Delta Kappa Gamma, an honorary organization for women teachers. Mrs. Elaine Rouse, Point Pleasant high school teacher, did the overall planning.

One placard, of the three in the display, pictured a bulging school-house and contained information about increasing national school enrollments with specific data about the West Virginia schools.

The situations of overcrowded classrooms, part-time sessions and emergency teachers were illustrated on a second poster. The third described the advantage of selecting teaching as a career.

Tools of teaching—books, globe, a slate, diploma, pens, pencils and rulers—were the artistic touches chosen and executed by Irene Sayre, Leon Graded School teacher.

USDA Issues Recipe Card File Supplement

Washington—The U. S. Department of Agriculture has published the first of a series of supplements to its card file of recipes developed especially for use in preparing school lunches.

The recipes are designed to help school lunch managers and cooks plan, prepare and serve lunches meeting the Type A requirements of the National School Lunch Program. The additions make the file an increasingly valuable aid to cooks in providing better lunches for school-children.

Twenty-five cards, containing 47



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General's New **KR DeLuxe Machines** with These New **PLUS Features!** 1. EZEE-ADJUSTO HANDLE - fully adjustable for space-saving storage, for height of any operator, or for pivotal operation. 2. EZEE-ROLL WHEELS E-Con-O-Vac two 6" wheels, with semi-pneumatic tires. 3. WRAP-A-ROUND BUMPER - made of non-marking KR-14 operati operating brush spread KR-18 — 17" diam. operating brush spread KR-18 — 19" diam. 4. AUTO-MATE SAFETY SWITCH-for right or left erating brush hand operation. 5. NON-MARKIT grey rub-Many Other Features! IF YOU ARE INTERESTED IN FLOOR PROTECTION THRU EFFICIENT FLOOR MAINTENANCE, MAIL THIS COUPON Have Distributor call on us. Send complete information, literature and prices.





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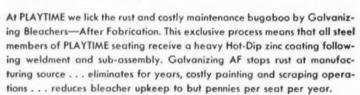
Write to PAGE FENCE ASSOCIATION in Monessen, Pa., Atlanta, Bridgeport, Chicago, Denver, Detroit, Houston, Los Angeles, New York, Philadelphia or San Francisco.

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SPOTLIGHT.

recipes, are included in this year's addition to the basic file. The supplement contains additional cards for seven of the ten sections of the basic card file—breads and cereal products, fruits and other desserts, main dishes, salads, sandwiches, sauces and gravies, and vegetables.

Each recipe contains directions for making 100 servings, with a column provided for recording the quantities needed to prepare the number of portions required for the children actually served in the individual schools

Variations of basic recipes are given. Menus built around the various protein-rich recipes are also suggested with space provided for entering the school's favorite menus.

Copies of Supplement 1 to PA271 "Recipes—Type A School Lunches" may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. at a cost of 30¢ a set. Copies of the basic file of 184 recipe cards are still available at \$2.25 a set.

Thomas to Direct Pitt Ed Administration

SE-268

PITTSBURGH, Pa.—Maurice J. Thomas, professor of education and executive secretary of the Tri-State Area School Study Council, has been appointed director of courses in educational administration for the University of Pittsburgh School of Education, reports Paul H. Masoner, dean of the school.

Dr. Thomas assumes the administrative post formerly held by William Yeager who has retired.

The new director will continue his duties as executive secretary of the Tri-State Area School Study Council.

CFAE Reports on Higher Ed Grants

NEW YORK—The years between 1952 and 1955 saw a marked rise in the dollar volume of grants by business concerns to higher education, as well as an increasing emphasis



"Take your message out of the dark!"

Why and how to show films in the "psychologically" right light

Did you know that a completely darkened room is not always the best setting for movies? You'll often find that the message gets across more effectively when individuals in your audience can observe reactions of the group.

The right light

Psychologists refer to this right light as a "comfortable level for group discussion." In actual value it is about one footcandle. This is the minimum amount needed to read letters the size used in the sentence above that begins with "Why."

No problem

But what happens on the screen if you step room light up to the proper level? Will your movies look washed out, lack needed contrast and desirable detail?

Not if you show them with the NEW, Kodascope Pageant Sound Projector, 16mm.

At sound speed, the Pageant's Super-40 Shutter automatically puts 40% more light on the screen than ordinary shutters. Even in a comfortably lit room you will get crisp tones, brilliant colors... all the details that help maintain interest and aid learning.

Other factors

The functionally brilliant pictures you will get are just one reason why a Pageant will help you to make movies both a pleasant and rewarding activity.

A nearby Kodak Audio-Visual Dealer

A nearby Kodak Audio-Visual Dealer will demonstrate at your convenience. Let him show you the many advances incorporated in this portable Pageant. See for yourself how a Pageant takes the "project" out of projection.

And compare these other important advantages that only the Pageant gives you.

1. Easy setups—Reel arms are already attached and fold into place. Spring-loaded snubbers and printed film path add to ease in threading. Single-switch reversing lets you run a few feet of film to check focus and sound, then reverse to opening frame.

2. Freedom from worry over maintenance and breakdown—Improper oiling has been pinpointed as the chief cause of projector difficulties. That's why a Pageant is permanently lubricated. It requires a minimum of maintenance, is ready for use when you want it.

3. Natural sound—Useful sound is a product of a number of factors. With a Pageant you get a complete sound system—baffled speaker, tone and volume controls, and an adjustable scanning beam for making the most of every sound track, regardless of position or condition.

Making a choice Choose from three different Pageant models. Get the one that meets your needs exactly. To help you make your decision on the basis of facts, send for this free booklet. It gives complete details on the unusually versatile Pageant.



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The famous MC Custom Projector, now available in 300 and 500 watt models, is unexcelled in screen performance and convenience of operation. Designed for classroom and small auditorium use, the MC Custom is ideally suited for all 2" x 2" slides and filmstrip projection. Compare the many outstanding features.

FEATURES

- Choice of 3½", 5" and 7" projection lenses American
 Optical top-quality with the exclusive Americate coating.
- Pressurized cooling reliable protection to film and slides, Keeps projector cool for comfortable handling at all times.
- Removable filmstrip unit accommodates single and double frame filmstrip — no glass pressure plates to scratch or mar film emulsion.
- Auto-focus slide changer with exclusive ejector spring all slides perfectly centered regardless of mount.
- 360° rotable front stops anywhere to perfectly center picture on screen — compensates for unevenness in screen or projection table.
- Elevating lever fingertip control with positive action.
- Lift-off carrying case made of durable wood leatherette covered, scuff-proof, waterproof, standard with all MC models.



SPOTLIGHT.

on unrestricted giving, a report published recently by the Council for Financial Aid to Education revealed.

The report, entitled "Management is Doing a Job," is based on a survey conducted by CFAE among 81 business concerns located in all parts of the country and including some of the nation's best-known companies.

Seventy-two concerns responded to the council's questionnaire, which asked the companies to list the dollar volume of their contributions to higher education and the purposes for which grants were made for the two years 1952 and 1955.

The council found that among the companies queried there was special accent on general-purpose or "unrestricted" aid, which allows the institutions themselves to determine how the money shall be spent.

This type of grant headed the list for both years, accounting for 21 percent of the dollar total given for all purposes in 1952, and 24 percent of the 1955 total.

The companies surveyed also were asked about the criteria used to determine what institutions would receive their contributions.

CFAE found that educational factors—accreditation, academic excellence and quality of institution leadership—as well as geographic proximity were the criteria most often taken into account.

Superintendent Presents Tulsa Schools Pictorially

Tulsa, Okla.—Charles C. Mason, superintendent of schools here, presented this year's report of progress to the board of education as an attractive pictorial bulletin.

Subtitled "Teachers Develop Human Resources," the report shows how Tulsa teachers work to encourage each child's individual growth, relate learning to everyday living, establish good citizenship habits and train pupils for business and industry. Duties are defined for the entire school staff which preserve individual integrity within the confines



It's electrifying!

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There's just no getting around how the new Royal Electric "Touch Control" makes students shine! This new feature saves many hours of teaching time. Even slow students catch on quickly to electric touch.

Teachers say it makes it so much easier to switch from the "firm" action of a manual typewriter to the powered light action of an electric. Beginners find it easier too. You simply turn a dial on a Royal and you "firm up" the touch. Then as the student adjusts you gradually reduce it to "light" again.

Of course, this is *only one* of the many reasons why Royal Electrics are preferred in schools today. Why not call in your Royal Representative? Let him show you right in your own classroom just how this new Electric typewriter can save you many hours of teaching time.





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No. 7-A Sani-Dri



Not 30% . . . not 60% . you get 100% savings on towel costs with Sani-Dri . . . plus 85% savings on maintenance overhead. No more empty towel cabinets . . . no messy, unsanitary washrooms . . . no fire hazard . . . no clogged plumbing. Sani-Dri gives you 24 hour automatic drying service that is clean and sanitary, plus savings never possible with towels. Underwriter's Seal and full 2 year guarantee!

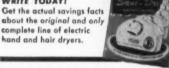


No. 8-A Sani-Dri in public building

HAIR DRYING is now considered a must in girls' shower rooms in today's schools to prevent colds and sickness. Sani-Dri also used to dry athletic equipment-ideal for pools, etc

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about the original and only complete line of electric hand and hair dryers.



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of the role each plays as a servant of the student body.

Other topics covered are: in-service education activities, community service, special services and education, the importance of the nonteaching staff, use of educational television and the school building pro-

ASCD Cites Discipline As Civilizing Force

WASHINGTON-Parents and teachers who expect children to be civilized, will achieve best results by employing civilized methods of discipline, according to a recent pronouncement by the Association for Supervision and Curriculum Development, an NEA department.

To help parents and teachers arrive at the answers they must have, the booklet probes first the manifold definitions and connotations of the word "discipline" and concludes that "we want . . . young people who behave effectively toward the attainment of a democratic way of life."

Two great tasks fall to the teacher, the ASCD report states. One is to understand and accept principles of democratic discipline and the other, is to translate those principles into daily action.

Examples of satisfactory methods as well as mistakes in day-to-day actions are shown through a series of case histories. Without exception, they demonstrate the exacting requirements but essential validity of administering constructive discipline rather than taking refuge in punitive "tricks."

Most discipline cases, contrary to current popular thought, are not the result of social abberations in the individual involved. They would not disappear, the booklet asserts, "even if we had a psychiatrist for every child.'

The real causes can be traced to situations in the structure of the group in which the individual is living or into which he is thrust. When something is wrong with that group, declares the study, "even the most normal individual is likely to proCHALKBOARD



HYGA-COLOR

of your chalkboard through color, without sacrificing the famous dustless, easy writing, easy erasing qualities of Hygieia Dustless white chalk

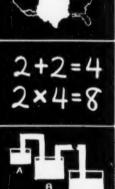
A pure levigated chalk, free from any grit, flint, or greasy binder, HYGA-COLOR is readily adaptable to every subject taught in schools.

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What's the nation's preferred classroom furniture? American Desk of course! One example from the complete line is the *Crusader* Chair Desk. Exceptionally strong and sturdy... the Crusader is quality constructed to stand up to years and years of hard use. Factory assembled

tops reduce installation time 90%. Rugged 14-gauge steel frame, "quiet" design...non-tip balance...generous storage space and work area 16" x 22". Well built — the Crusader — one of the most functional classroom units you'll find.

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Anchor Fence stands guard 24 hours a day

Handsome, sturdy Anchor Chain Link Fence gives your school complete safety and protection *night and day*. By day, Anchor keeps pupils safely inside—trespassers and unwanted animals stay out. At night, Anchor stands guard against vandals and intruders—helps preserve an orderly, well-kept appearance.

And this 24-hour protection is low-cost too. Anchor Fence lasts a lifetime—deep driven anchors keep the fence erect and sturdy year after year in all kinds of weather and soil conditions. Anchor needs no annual painting. Insist on Anchor—the fencing zinc-coated after weaving, not before.

Get GENUINE Anchor Fence

Look for the famous orange-and-black nameplate that means you're getting the finest chain link fence... erected by "factory trained" experts. For a free estimate or more information, call your local Anchor office or write: Anchor Post Products, Inc., Fence Division, 6711 Eastern Avenue, Baltimore 24, Maryland.



Division of ANCHOR POST PRODUCTS, Inc.

Plants in Baltimore, Md.; Mouston, Texas; and Los Angeles, California Sold direct from Factory Branches and Warehouses in all principal cities

SPOTLIGHT_

duce confused action leading into a behavior problem."

Investigating what most frequently goes wrong within school groups, the authors list six major "disciplinary risks."

Among these are conflicts arising from personal relationships; mistakes in leadership such as autocratic pressure, inconsistency or revenge; and disturbances that stem from such tensions as hostile competition.

The booklet ends with eight general guideposts for the classroom teacher to follow in order to maintain good discipline. Each guidepost, while directed toward the group, is applicable for individual problems.

Comparative Ed Group Formed

KENT, Ohio—Courses in comparative education are being taught in teachers colleges and departments of education throughout the nation. Too often the course instructors have scant contact with new findings or international information.

In an attempt to remedy this situation, and also to promote and encourage further studies in this area, the Comparative Education Society was formed this year, according to Gerald Read, professor of education at Kent State University, who was elected its secretary-treasurer.

Former Scientists, Engineers Suggested as NYC Teachers

New York—The Board of Education's Advisory Committee on Science Manpower has reported it is considering the possibility of recommending the employment of retired scientists and engineers to meet the present shortage of science and mathematics teachers. Joseph W. Barker, president of the Research Corporation and the American Society of Mechancial Engineers, offered the suggestion.

Superintendent of Schools William Jansen called a special conference to study the suggestion in relation to the entire problem. He indicated, at the conclusion of the meeting, that a survey made this year showed a

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Have you studied your floor maintenance costs lately? Have you analyzed your cleaning methods to determine whether you are using too many operations-needless rinsing, for example-or are wasting time in prolonged scrubbing when the right cleaner would get the dirt loose in a fraction of the time? Remember, 95c of every floor maintenance dollar goes for labor! Call in your nearby Hillyard Maintaineer® for consultation. He will carefully study your floor problems and recommend (1) modern, streamlined work methods and short cuts, and (2) the tools and materials to enable you to take advantage of the short cuts, to keep your floors in better condition than ever before!

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SPOTLIGHT____

current need of 47 full time teachers to staff 235 science classes in the city's high schools. This shortage represents approximately 6 percent of the total number of secondary school science teachers employed by New York City.

The most serious drawback, Dr. Jansen said, to recruiting retired professional scientists and engineers is that the New York State Education Law requires a minimum of eight semester hours in education courses before a New York City secondary school license can be granted. Such courses are not included as degree requirements for scientists and engineers.

If, however, there are enough interested retired scientists and engineers, under the age of 70, to warrant it, "I will be happy to urge James E. Allen, New York State's Commissioner of Education, to consider modification of the present regulations in order to enable these men to teach on a part time and emergency basis," stated Dr. Jansen.

Those interested in serving in these capacities are urged to write to: Mr. Samuel Schenberg, Board of Education, 110 Livingston St., Brooklyn, enclosing a brief biography sketching educational qualifications and scientific and industrial experience.

Teachers of biology, chemistry, physics, related technical courses and mathematics are most needed to alleviate the shortage of science instructors in the city's secondary schools.

Consider College Students Ed Partners, Prexy Advises

Washington — "Give the college back to the students and let them do the learning," was the solution offered by Harold Taylor, president of Sarah Lawrence College, Bronxville, N. Y., to American colleges faced with a shortage of funds, insufficient teachers and the prospect of doubled student bodies within the next ten years.

Writing in the September issue of NEA Journal, Dr. Taylor called the crisis in higher education "so big and so complicated that the outdated





The handsomely textured ceiling of Armstrong Travertone adds smart beauty as well as comfortable quiet to the community meeting room of Long Island's new Garden City High School. Easy to

maintain, Travertone stays new looking for years. Architects were Eggers & Higgins; the acoustical contracting was done by the Wm. J. Scully Acoustics Corp.

WHAT HAS BEEN DONE DECORATIVELY WITH ACOUSTICAL CEILING MATERIALS?

The growing use of acoustical materials, stemming from the increased need for quieter, more relaxed school surroundings, is creating new interest in the ceiling's decorative possibilities.

An unusually wide assortment of beautifully styled acoustical ceilings is now available from Armstrong. From dignified, marble-like Travertone to the more casual full random pattern of Cushiontone, Minatone, and Arrestone, there is an Armstrong ceiling material to suit the styling of any interior. Factory finished, they need only standard maintenance. In addition, Armstrong acoustical ceiling materials can be repainted to match any color scheme without appreciable loss of noise-quieting efficiency.

For full details on the many decorative possibilities offered by Armstrong acoustical ceilings, plus a free job estimate, see your Armstrong Acoustical Contractor. For the free booklet, "Quiet at Work," write Armstrong Cork Company, 4211 Tripple Avenue, Lancaster, Pa.

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Rolls effortlessly on rubber casters . . . no lifting necessary.

· Mops last longer, without tearing, twisting.

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SPOTLIGHT

teaching methods now in use are helpless to cope with them."

Dr. Taylor asserted further that our present "huge mechanical system for disseminating information" assumes that the rewards of learning are academic credit, social status and higher incomes. He suggests supplanting the current outlook on higher education with a system which will consider the student's views on education, seek his help in educational planning and make each student a responsible partner in the entire educational enterprise.

President Asks Groups to Follow Up Physical Fitness

WASHINGTON-President Eisenhower has appointed a Council on Fitness of Youth, composed of the Vice President, the Secretaries of Health, Education and Welfare, Agriculture, Interior, Labor and Justice.

The council's job is to "coordinate, stimulate and improve the functions of the federal agencies with respect to the fitness of youth,"

The President has also created a Citizens Advisory Committee on the Fitness of Youth, consisting of lavmen and educators, to encourage private measures "conducive to the achievement of a happier, healthier and more completely fit American youth."

On September 12, NEA's Association for Health, Physical Education and Recreation held an invitational conference in Washington to plan next steps in creating new interest and measures for physical fitness.

CONFERENCE CALENDAR

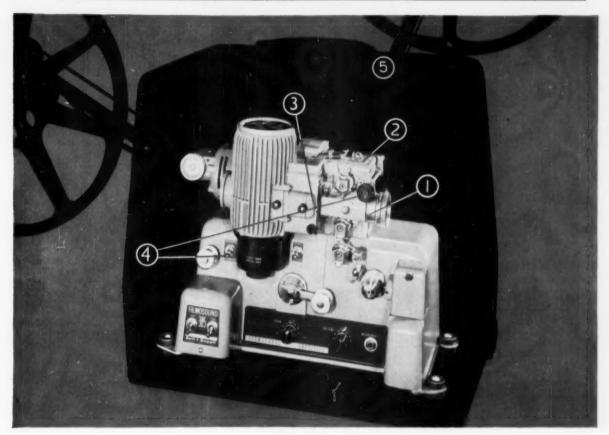
NOVEMBER

7-9, Fourth Annual Conference, National Association of Public School Adult Educators, NEA, Atlantic City, New Jersey.

10-12, Annual Conference, Adult Education Association of the USA, Atlantic City, New Jersey.

11-17, American Education Week.

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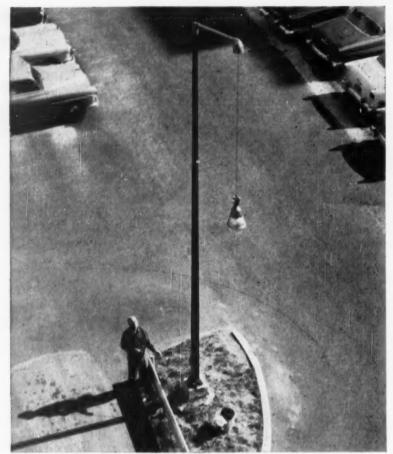
- Sharpest picture on the screen-combined result of exclusive optical system: 5-element lens, double condenser, pre-aligned lamp and rhodium reflector.
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Take advantage of Bell & Howell's 25 years of leadership in sound movies and ask for a classroom comparison. Compare the Bell & Howell Filmosound Specialist with any other sound projector on the market today. Discover why the Filmosound Specialist out-features and out-sells all other sound projectors. Just mail in the coupon. Your Bell & Howell Audio-Visual dealer will be glad to arrange a classroom comparison at your convenience. Call him today, or mail coupon to Bell & Howell, 7109 McCormick Road, Chicago 45, Illinois.



- 3 400% longer projector life Five critical film-handling parts are surfaced with sapphires for heavy-duty use.
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CALENDAR

Theme: "Schools for a Strong America."

18-20, Northwest Regional Conference on Administrative Leadership Serving Community Schools, NEA Department of Rural Education and AASA, Spokane, Washington.

22, Annual Meeting, National Council for the Social Studies, NEA, Cleveland,

DECEMBER

27-30, Annual Winter Conference, National Science Teachers Association, NEA, in conjunction with the American Association for the Advancement of Science, New York.

1957

FEBRUARY

14-16, Annual Convention, American Association of Colleges for Teacher Education, NEA, Chicago.

14-16, Annual Meeting, National Association of Business Teacher-Training Institutions, division of United Business Education Association, NEA, Chicago.

15-21, National Convention, American Association of School Administrators, NEA, Atlantic City, New Jersey.

16-20, Midwinter Meeting, National School Public Relations Association, NEA, Atlantic City, New Jersey.

23-27, Forty-First Annual Convention, National Association of Secondary-School Principals, NEA, Washington.

MARCH

1-5, National Convention, Department of Audio Visual Instruction, NEA, Washington.

4-6, Twelfth Annual National Conference, Association for Higher Education, NEA, Chicago.

17-21, Twelfth Annual Conference Association for Supervision and Curriculum Development, NEA, St. Louis, Mo.

20-23, National Convention, National Science Teachers Association, NEA, Cleveland.

20-April 1 National Convention, National Association of Deans of Women, NEA, San Francisco.

24-29, Annual Meeting, Department of Elementary School Principals, NEA, Cincinnati, Ohio.

29-30, Thirty-Fifth Annual Meeting, National Council of Teachers of Mathematics, NEA, Philadelphia.

THE SCHOOL EXECUTIVE



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See the MAN from MONRO

for CALCULATING ADDING ACCOUNTING DATA PROCESSING

District aflame as committee continues School integration investigation

Two armed Capitol policemen stood at the door—one on the inside and the other on the outside. Their heavy holsters protruded awkwardly as they bowed the witnesses, newspaper reporters and representatives of the curious public into the room.

The most casual observer could see that the occasion was a solemn one. A huge press table was filled, its occupants dour, chewing their lead pencils. Before the meeting was called to order, Congressman John Bell Williams (D., Miss.) distributed a statement which Chairman James Davis (D., Ga.), who would arrive late, had telephoned from Atlanta:

This subcommittee was created by a vote of the House District of Columbia Committee and instructed to investigate the Washington school system. We are getting the facts and are getting them from the sources best qualified to give them, namely the school officials, principals and teachers. The people generally do not know these facts, and we are bringing them into the light of day.

"We are doing a thorough and complete job, and no protesting radicals are going to stop it."

Charges hurled, pro and con

The august body assembling in the hearing room of the House Committee on the District of Columbia was attending the fourth day of the investigation of the District schools. Charges and countercharges had emanated from high and low places.

Presidential-Candidate Stevenson, in a telegram made public by Eugene Davidson, president of the District branch of the National Association for the Advancement of Colored People, had said, "I think the hearings are serving no constructive purpose."

Previously, President Eisenhower had sent a telegram to Davidson saying that he thought the House hearings on schools would not impair desegregation in the District schools.

Roy Wilkens, executive secretary of NAACP, thought Candidate Stevenson had the better choice of words. It was his opinion that the hearings would have an effect on integration in other parts of the country, if not in the District.

Hard on the trail of the message from Atlanta came one from the "land of the sky blue waters" sent by Congressman Roy Wier (D., Minn.) who is a member of the District Committee of the House.

"Respectfully request you call meeting of full House District Committee to review disgraceful performance of counsel for subcommittee investigating integrated school system of the District of Columbia. As a former member of the Minneapolis Board of Education, I recognize the long-range damage that can be done to the school system of the District by this type of investigation. Counsel Gerber's sole object seems to be to prove that integration has not worked and to set teacher against teacher, parent against parent and pupil against pupil to prevent it from working in the future."

It was easy to see that the disagreement over the hearings and their findings to date had been wide and sharp. At a mass meeting to protest the school probe, some 400 persons invited to a church by the District branch of NAACP heard Secretary Wilkens say, "It is a Georgia and Mississippi hearing, not a hearing of Congress." Negroes are being "smeared from one end of the country to the other," Wilkens complained, and it's being done from the capital and "labeled as the findings of a Congressional committee."

Second survey launched

Independently, another survey of the schools is being launched, by a group calling itself the "Washington Committee for the Public Schools," to offset the House hearings. The new committee is headed by Gerhard Van Arkel, secretary of the Democratic Central Committee, and a member of the executive board of the Washington chapter of Americans for Democratic Action.

In the meantime, the House hearings continue. Witnesses are selected in advance by William Gerber, Memphis attorney who heads the staff of the investigating body. According to Chairman Davis, they had been chosen from 15 schools, 11 whose enrollment was predominantly Negro and four whose enrollment was predominantly, or exclusively, white.

Increasing school vandalism reported

The fourth day of the hearings began with Assistant School Superintendent John K. Riocks as witness. His testimony, evidently sought to point up increasing vandalism in the D. C. schools, evinced these facts:

The cost of replacing windows in 1953 was \$51,816.01. Each year the window repair bill mounted, until in the school year 1955-56 it was \$59,267.47. The cost of replacing equipment lost, or stolen, had increased from \$2,934.29 in 1953-54 to \$6,834.79 in the last school year.

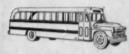
Principal discounts board member's stand

Miss Dorothy L. Tripp, principal of two elementary schools in northeast Washington, was the next witness. Enrollment in these schools is approximately 40 percent white and 60 percent Negro. Miss Tripp, whose tenure in the D. C. schools began in 1926, interrupted her testimony to express her concern over a school board member's statement which had been critical of previous witnesses and their testimony.

Wesley S. Williams, Negro board member, had told the press he felt that Superintendent of Schools Hobart M. Corning "should re-examine the competence of some of the principals" who had appeared at the hearings. "Some reflections of these principals indicate they are unable to cope with their present-day jobs."

Miss Tripp maintained that she ex-

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10802-60 pupils



8802-60 pupils



6702-42 to 48 pupils



4502-30 to 36 pupils



3802-16 to 20 pupils



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Fill out coupon below. Mason will send you candy samples beforehand with no obligation. You give us no money in advance. We supply on consignment famous Mason 10¢ Candy Bars, packed 5 bars in each package, wrapped with your own personalized wrapper at no extra charge. You pay 30 days after receipt of candy. Return what you don't sell. Candy is sold at regular retail price. On every box sold you keep \$6.00 and send Mason \$9.00 (66%% profit

on cost). There's no risk. You can't lose. Mail in coupon today for information about MASON'S PRO-TECTED FUND RAISING DRIVES and samples.



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Mason, Au & Magenheimer, Mineola, L. I., N. Y.

WASHINGTON

pected to confine her testimony to the facts whether or not they might be considered a reflection on herself or the faculties of her schools, but that she wanted to be "awfully sure there will be no reprisals or retribution of any kind on what I may testify." She was assured from the chair that getting the facts was the investigation's sole purpose. Later, some members of the subcommittee expressed resentment at the school board member's statement, and assurance that the committee would "stand behind" witnesses.

New educational problems recounted

Principal Tripp described disciplinary difficulties in the school which, for the most part, had originated in the community and had been brought to the school for final settlement. She discounted these, however, and placed emphasis upon the educational problems arising from integration. She said she was "shocked" at the lag of many of the Negro newcomers in their school work. In a test which she had given to the fifth grade, none of the white children fell below the fifth grade norm and none of the Negro students measured up to it. Behavior problems she described included an increase in vandalism in the community as well as the school. There had been more broken windows in the last two years than in the past twelve. There had been instances of theft and distribution of pornographic literature.

"It will take a long time"

Summarizing her testimony, Miss Tripp expressed her opinion that "integration is right philosophically, but practically it is difficult; it will take a long time." She saw in integration better advantages for the Negro child and felt that the white child would acquire a spirit of tolerance never known before. She called upon the critics of the present situation to remember that not only had there been integration in the school population, but also integration of teachers and integration at the supervisory levels, which called for adjustments that could not be made at once.

As the hearings have proceeded, witnesses described disciplinary problems, particularly school ground fights which often had not been interracial and some of which had originated entirely apart from school activities of any kind. Some of these disputes had been accompanied with knifings. Some schools have given up social affairs; others have continued with the usual extracurricular activities including dances. Most testified to serious educational maladjustments.

Corning climaxes session

Surprise witness who climaxed the hearing was Superintendent of Schools Hobart M. Corning who had been called in by tardy Chairman Davis solely for the purpose of assuring witnesses before the committee that they had nothing to fear from reactions to their testimony. Superintendent Corning firmly stated that he had "encouraged everybody to respond and to be forthright in their statements." He was commended warmly by committee members for his cooperation. In response to the chairman's question: "Can you state categorically that no witness will suffer reprisal for testimony given at this hearing?". Superintendent Corning said, "Certainly not at my hands."

District, national reactions

Opponents of the hearing claim "stacked" testimony and speciallyselected witnesses. Its supporters contend that it is disclosing a true picture of the situation in the District of Columbia after two years of experience in school racial integration. Further examination of Superintendent Corning and his administrative staff as the hearing proceeds, may disclose other causes for pupil retention and retardation as well as instances of decline in standards of school behavior.

In the meantime, other integrating schools of the nation are reacting to the picture of the District schools as delineated in the House hearing room. As other study committees are formed, the District schools will likely become the most thoroughly investigated schools in the United States.

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PROFESSIONAL LIBRARY/

recent publications the school administrator will want to read, to pass along to associates, or "to have heard of"

Principles and Procedures of Curriculum Improvement

By Vernon E. Anderson, The Ronald Press Company, New York, 1956, 468 pp., \$5,50.

Supervision as a technical term in the vocabulary of education is coming increasingly to mean "the improvement of instruction." The task of curriculum improvement is approached with both humility and directness in this book which can be used widely in both pre-service and in-service education programs. But the book's greatest contribution will be to teachers, supervisors and administrators actively engaged in school work.

The human factors and all their implications for relationships within a school system are introduced. A solid treatment is given to the social and psychological determinants of the curriculum. Comprehensive descriptions and analyses of procedures and practices used in launching, maintaining and evaluating curriculum study and improvement, emphasizing citizen participation, workshop techniques and practical problems, are the heart of the book.

This material should inspire teachers to experiment with cooperative planning and unit development as an integral part of an overall curriculum philosophy pervading the entire school system, and will make a real contribution to the field of instructional improvement.

—Paul M. Halverson
Assoc. Professor of Education
Syracuse University, N.Y.

The Technical Institute

By Leo F. Smith and Laurence Lipsett, McGraw-Hill Book Company, Inc., New York, 1956, 319 pp., \$5.00.

This book is the most comprehensive analysis written to date about the technical institute and the opportunities it offers for technical training below the college level. The authors present a thoroughly documented description of the present status of the technical school: its unique characteristics, types, curriculums and job opportunities for graduates.

The essential elements of all aspects of the organization and administration of technical institutes are detailed, based on data carefully gathered and summarized from successful programs in all parts of the country.

> —Burr D. Coe, Director, Middlesex County Vocational and Technical High Schools, New Brunswick, N. J.

Planning The Elementary School Gurriculum

By George A. Beauchamp, Allyn and Bacon, Inc., New York, 1956, 295 pp., \$4.75.

This book deals with issues in elementary school curriculum development. Planning procedures are suggested, based on the premise that "the combined wisdom of many school patrons, teachers and administrators must be utilized for the curriculum planning process."

Education and Responsibility

By Tunis Romein, University of Kentucky Press, Lexington, Ky., \$3.50

With an examination of the pragmatic doctrine of the nature of man, this book brings the concept that responsible action receives group approval into focus with the doctrine that "the individual educated in a democratized and socialized environment is thereby enhanced with a natural intelligence which has the capacity of taking into account the consequences of acts, providing the genuine basis of all responsible activity."

The premise is presented that all educational philosophies are based on faith and may be tested on the basis of the varying concepts of the nature of man. Differences between the Catholic and Protestant educational dogmas are pursued at length.

This reviewer wishes that the author had presented his own theory of education along with Christian and Judaic doctrines to complete a democratic viewpoint.

-T. James Ahern
Superintendent
Mamaroneck, New York,
Public Schools

Assumptions Underlying Australian Education

By Butts R. Freeman, Bureau of Publications, Teachers College, New York, 1955, 80 pp., \$2.50. This book examines practices in Australian education in order to discover the assumptions underlying its goals, administration, content and methods. Such practices as: excessive centralization, lack of public interest and support, imbalance in the curriculum, dominance of examinations and over-stressing of academic

The author's hope is that this report will lead the Australian people to reanalyze their educational system. This hope should be extended to include a formulation of objectives and a philosophy of education based on Australian culture and changing national position.

standards, are reviewed.

-ADELLE H. HAND
Professor of Education
University of Buffalo,
Buffalo, N. Y.

Also Noted . . .

Measurement and Evaluation

By George Sachs Adams and Theodore L. Torgerson, The Dryden Press, Inc., New York, 1956, 658 pp., \$5.75.

The Young Child in School

By Clark E. Moustakas and Minnie Perrin Berson, William Morrow & Company, Inc., New York, 1956, 256 pp., \$4.00.

Elementary Handcrafts for Elementary Schools

By Mamie E. Brown, Exposition Press, New York, 1956, 104 pp., \$4.00.

Reading Can Be Fun

By Ellen C. Henderson, Exposition Press, New York, 1956, 172 pp., \$3.00.

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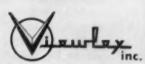
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SCHOOL LUNCH





Ground-level delivery entrance and walk-in refrigerator (at right) are important to remember when planning the new school.

Lunchroom Planning is Important

by JAMES L. CREASY Superintendent of Schools Berkeley County Public Schools Martinsburg, West Virginia THE SCHOOL LUNCH program is big business. Nearly ten million pupils are fed at a cost of more than a quarter of a billion dollars yearly in this country. Nor does this include the hidden costs such as the salaries of superintendents, cafeteria managers and their staffs who spend much time planning and supervising the operation of the program.

There is every indication that costs will continue to rise as more and more schools are provided with lunchrooms. The number has increased about 85 percent during the past decade. With this phenomenal popularity, it is but a matter of time until food services are offered in every school. In fact, most school planning authorities do not approve school plans which make no provision for adequate lunchrooms.

This should alert public school administrators to the necessity of careful and long-range planning for more efficient school lunch programs. The object should be to provide the best lunch possible at minimum cost. To achieve this, expert knowledge of food service layout and equipment is necessary. Planning, therefore, must begin with basic school plant planning itself to keep personal service costs at a minimum, since the payroll has climbed to equal the cost of food in many areas.

The central theme of planning a lunchroom is simplicity, but with a functional program always in mind. Among labor-saving devices available are dish washers, vegetable peelers and cutters, mixers and food warmers. These should be located where they are easily accessible to several workers with a minimum waste of time.

This means that the flow of traffic must be considered in the early stages of planning. To the architect's ideas should be added the wisdom of

ROLLING MILK DISPENSER BRINGS COLD, REFRESHING MILK TO CLASSROOMS



EAGER "CUSTOMERS" at Hawley School now clamor for a morning glass of cold, rich, delicious milk. No fuss, no muss and no coaxing.

Here at the Hawley Grade School in Fort Dodge, Iowa, the mid-morning "milk break" was formerly beset with problems. On warmer days, bottled milk often lost its chill, became flat and was refused or wasted by the children. Serving the milk was a tiresome chore for teachers. There were dripping, untidy bottles to distribute . . . bottle caps and straws to gather up . . . and empties to put back into racks.

Today, the Hawley School has two self-refrigerated Norris N-10 Super Milk Dispensers mounted on easy-rolling steel carts. One dispenser serves each floor. At milk time, the teacher rolls the cart from room to room, with paper cups aboard. Youngsters line up for a serving of ice-cold, aerated, delicious milk. It's quick, clean, delightful—in any weather. And milk consumption has increased 33%, according to Miss Marian Dekker, principal of the Hawley School.

Want detailed information on this wonderful new idea? Write Norris Dispensers, Inc., Dept. SE-116, 2720 Lyndale Ave. S., Minneapolis 8, Minnesota

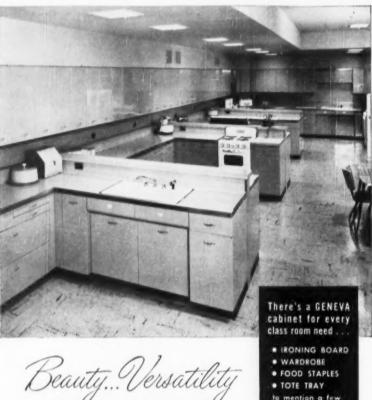




NO BOTTLES, capsor straws. For Mrs. Aliene Schluchter, teacher at Hawley, this means welcome relief from a messy clean-up job.

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Your school benefits two ways when you specify GENEVA steel cabinets . . . lower initial cost . . . decidedly lower maintenance cost. And GENEVA offers the most extensive line of steel cabinets in the industry, designed specifically to meet the requirements of home arts departments. If your school is anticipating remodeling or new building, investigate the economy and fine quality of GENEVA cabinets.



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LUNCH

veteran cafeteria workers. Those who have struggled with awkwardly placed pieces of equipment for many years will be enthusiastic over planning more efficiently for a new program.

Advice may also be secured from expert equipment representatives. This is particularly true of makeshift lunchrooms being established in existing buildings. It is often possible to secure a complete plan, but again this should be carefully studied by employees with experience in cafeteria work.

Delivery services, garbage disposal facilities, store-rooms and pupil traffic flow are other important factors to remember when planning a lunchroom. Table tops, impervious to liquids; chair gliders that minimize noise; non-corroding equipment; adequate hot water supply and a sanitary lavatory for workers are but a few of the vital points to keep in

The physical appearance of the lunchroom is also important. Gay colors on the walls add materially to a pleasant atmosphere in the school lunchroom. The floor should also be colorful, durable and acid-resistive. Equipment should match the scheme of the lunchroom both in color and design.

Environment important

Experience with walk-in refrigerators has proved their value in the lunch program. Many commodities which would not spoil but would deteriorate in the average storeroom may be preserved in this way for an indefinite time. Walk-in refrigerators also permit bulk buying at lower prices, a significant saving in the total program. In the modern school building, such a refrigerator should be provided for in the initial planning and constructed under the general contract.

If administrators wish to provide appetizing lunches with maximum nutritional value at a cost the parents can afford to pay, sound planning is necessary.



we have an inspiring morning ahead come and be a part of it

When: November 25, 10:30 a. m.

Where: Chicago, Palmer House, NSSI Convention

Who: Sico management, franchised distributors and their salesmen

and Why: Why, indeed! A very exciting why, which can't be entirely told at this time. But it all pivots on stimulating new plans, the unveiling of certain sales-provoking developments, a new aspect of Sico equipment that will very likely shape the course of things to come in our industry; all in all, a blueprint for 1957 sales and advertising that will fire the imagination of each of us.

On hand will be a report from New York's leading design house, Lippincott and Margulies (interior stylists for the atomic submarine *Nautilus*) to reveal part of this picture. Also present will be a principal of our Minneapolis advertising agency, ready with the promotional side of the picture. Sico management will fill in the details.

Skip early breakfast. Sico has retained one of Chicago's finest catering firms to rush fresh-baked breakfast rolls to the hotel 15 minutes before starting time. These, with plenty of butter, hot coffee and canadian bacon, will see you through the session.

We'll be in touch with each of you individually before long, but plan now to come and be a part of Sico's "year to remember."

Sincerely,

Wally Westhers Vicentics

Kermit H. Wilson (pres.)





Keep your floor-maintenance men happy..



Fitted EQUIPMENT!

Choose from the COMPLETE Finnell More than a score of models and sizes permits selection of the equipment that's exactly right for your job!

However much a maintenance man may want to do a good job, and at the same time show savings in labor costs, he's stymied if the machine is too small, or too large, or is otherwise unsuited to the job. Different floors and areas call for different care and equipment. That's why Finnell makes more than a score of floor-maintenance machines. From this complete line, it is possible to choose equipment that is correct in size as well as model . . . that provides the maximum brush coverage consistent with the area and arrangement of the floors.

Finnell makes Conventional Polishing-Scrubbing Machines in both concentrated and divided-weight types, each in a full range of sizes...a Dry-Scrubber, with self-sharpening brushes, for cleaning grease-caked floors... Combination Scrubber-Vac Machines for small, vast, and intermediate operations, including gasoline as well as electric models . . . Mop Trucks . . . Vacuum Cleaners for wet and dry pick-up, including a model with By-Pass Motor. In addition, Finnell makes a full line of fast-acting Cleansers for machine-scrubbing . . . Sealers and Waxes of every requisite type . . . Steel-Wool Pads, and other accessories - everything for floor care!

In keeping with the Finnell policy of rendering an individualized service, Finnell maintains a nation-wide staff of floor specialists and engineers. There's a Finnell man near you to help solve your particular floor-maintenance problems . . . to train your operators in the proper use of Finnell Job-Fitted Equipment and Supplies . . . and to make periodic check-ups. For consultation, demonstration, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., \$111 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

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New Product

The key numbers (SE —) which appear at the head of each product review and advertisement in this issue are also listed on the yellow mailing card that is bound in this section. For further information on any product, simply circle on the card the key number for that product and mail the card to us.

Reviews

FOOD SERVICE

- See also page 142

Milk Dispenser SE-401

Maintains Portion Control



Meterflo Bulk Milk Dispensers come in a variety of models. Simply by pressing a button or dropping a coin, the dispensers deliver a preset controlled portion of refrigerated milk, automatically. Fingertip control dial pre-sets quantity to be served and maintains portion control from 1 to 32 ozs.

The dispensers use standard 5 and 10 gallon dairy cans and are available for coin vending of bulk milk in a choice of pre-set portions.

METERFLO DISPENSERS, 627 Grove St., Evanston, Ill.

TEACHING MATERIALS

—See also page 144

UN Project Kit SE-402 Teaching Aid for Social Studies

The United Nations Workit is a new kind of classroom project—a three-dimensional, full-color model of the United Nations Headquarters, set on a 30" x 30" world map, and bounded by mounted picture stories of the U.N. aims, goals, and accomplishments.

The kit is designed to be used at several grade levels.

ARTHUR C. CROFT PUBLICATIONS, 100 Garfield Ave., New London, Conn.

BUILDING PRODUCTS

See also page 151

Vinylized Tile SE-403

Comes in Bright, New Color

Azrock Products Div. of the Uvalde Rock Asphalt Co. has added another bright, new color, P-719, Shamrock White to its line of vinylized tile.

Shamrock White has a white background with colorful green marbleizing. It comes in 9" x 9" size, 3/32", 1/8", and 3/16" thicknesses.

AZROCK PRODUCTS DIV., UVALDE ROCK ASPHALT Co., 500S Frost Bank Building, San Antonio, Tex.

CLASSROOM EQUIPMENT

See also page 152

Tablet Arm Chair SE-404 Has Wide Range of Adjustments



Brunswick-Balke-Collender's new tablet-arm chair comes in two sizes with a wide range of adjustments of the tablet arm.

The chair provides storage space

for the student's books with a side book rack welded to the frame. Because of the compact design of the entire chair, the placement of the book rack allows for wider aisles in the classrooms.

The frame of the new unit, including the support arm, is of welded construction. The back and seat of the unit are riveted to the frame. The tablet arm can easily be disassembled from the support arm for storage.

BRUNSWICK-BALKE-COLLENDER Co., 623 S. Wabash, Chicago 6, Ill.

MAINTENANCE

-See also page 164

Power Sweepers

SE-405

Engineered for School Maintenance



Two models of a new indooroutdoor sweeper are available: the MHD-36 which has a 36" brush swath (exclusive of the 12" side brush for cleaning along walls and curbings) and will cover 80,000 sq. ft. in one hour: and the MHD-48, which has a 48" swath, plus side broom and will cover 100,000 sq. ft. hourly.

Easy to operate, the Modern Power Sweeper maneuvers smoothly around classroom or auditorium equipment and, outdoors, between trees, shrubs, and playground equipment. Machines pick up the finest dust particles as well as more bulky

Modern Power Sweeper Co., 738 N. McKeever Ave., Azusa, Calif. FOOD SERVICE

Refrigerator

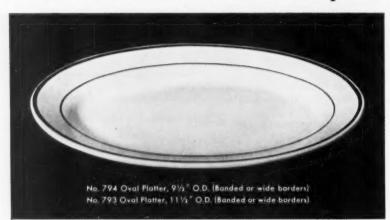
SE-406

In Combination with Freezer

The Vimco Stainless Steel Model DTS-16F-16-S refrigerator features a combination 16 cu. ft. normal temperature refrigerator and a 16 cu. ft. freezer. It has unique interchangeable interiors that are adjustable on I" centers to take any or any combination of bakers pan slides, station-



New oval platters make Double-Tough Dinnerware line even more complete!



You now have your choice of 24 different items!

- These beautiful oval platters, in a choice of either banded or new wide borders, make the Double-Tough Dinnerware line one of the most complete in the business.
- And there's nothing like Double-Tough to save you money on tableware replacement costs. Order these new platters and any other items you need from your authorized Corning Double-Tough dealer now!



Choose from 4 styles of Double-Tough Tumblers

· Actual field tests in hotels and restaurants prove Corning Double-Tough Tumblers last 4.3 times longer than ordinary tumblers-quickly pay for themselves with the money they save. Better order yours.

CORNING DOUBLE-TOUGH Dinnerware

ary or pull-out meat rails, stationary or pull-out shelves and refrigerated drawers. Interior accessories can be changed in minutes.

One hundred per cent all-metal construction, automatic defrosting.

VICTORY METAL MFG. CORP., Plymouth Meeting, Pa.

SE-407

Folding Pedestal Table

For Auxiliary Seating



The Foldkrest Table is easy to fold and easy to carry. Made of 16gauge tubular steel with either tempered Masonite or plastic tops, the table solves the problem of extra cafeteria seating in a hurry and is equally suitable when placed in per-

The table is self-leveling and will not teeter. A special locking toggle insures complete rigidity when the table is in use.

FOLDCRAFT Co., Mendota, Minn.

SE-408

Dish Caddy

Eliminates Excessive Dish Handling

The Dish Caddy is a storage cabinet that simplifies unnecessary and unsanitary handling of school dishes. Light in weight, made of stainless steel, it is designed to withstand much abuse. A new feature is the translucent plastic doors, available in soft colors.

The unit loads on two sides of its twin compartments and is rolled easily and smoothly on its ball bearing swivel centers to the serving station. It stores neatly and conveniently under the counter with its covers in closed or open positions ready for serving.

UNIVERSAL PRODUCTS CORP., Secaucus, N. J.



Architects: Thorshov and Cerney . General Contractor: D'Arcy Leck Construction Company . Flooring Contractor: Chas. H. Anderson Floors, Inc.

Huge H. S. gym floor gets MULTI-CLEAN Gym Finish

The new \$2,700,000 Richfield High School, one of the largest in the Midwest, is said to have the largest high school gymnasium in Minnesota.

This mammoth 14,500 sq. ft. gym floor is of northern hard maple "Ironbound Continuous Strip" set in mastic over ½" Chafco Cork Board. Wood floors were also laid on the auditorium stage and in the school's wood working shop. B-and-better vertical grain fir was used for the stage while "Ironbound Continuous Strip" was applied in the wood working shop. Chas. H. Anderson Floors, Inc., furnished, installed, sanded and finished all of these wood floors.

One coat of MULTI-CLEAN Penetrating Seal and two coats of MULTI-CLEAN Gym Finish were used on the gym floor. The auditorium stage and wood working shop received three coats of MULTI-CLEAN Penetrating Seal.

John Ladd, vice-president and Minneapolis branch manager of Anderson Floors, gives these reasons for specifying MULTI-CLEAN finishes: First, they protect and enhance natural floor beauty, thus eliminating the need for periodic resanding to restore the floor's original color.

Second, they have outstanding wearing qualities and an anti-slip surface that is both attractive and easy to keep clean.

Third, they give excellent coverage, yet are not premium priced products.

Fourth, experienced MULTI-CLEAN Distributors are always near at hand, well-stocked, and trained in

the MULTI-CLEAN METHOD of scientific floor care. They give prompt, courteous help when it's needed.

There's a MULTI-CLEAN Finish for every type of floor. Your local MULTI-CLEAN Distributor will be glad to advise you and help you with any of your floor problems.





2277 Ford Parkw	ay, St. Paul 1, Minnesota
floor care and he on Concrete Wood, or	cout the MULTI-CLEAN METHOD of ow it will save me time and money e, Asphalt Tile, Terrazzo, I'd also like Floor Machines, Scrubbing
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TEACHING MATERIALS

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plastic-coated materials and in a choice of color combinations. To make a print on any of these materials, simply insert into an Ozalid machine with your translucent positive original. Seconds later, your copy appears-clear, dry, ready to use-on the material and color you have selected.

OZALID, DIV. OF GENERAL ANILINE & FILM CORP., 73 Ansco Rd., Johnson City, N. Y.

SE-410 Stereoscopic Microscopes Feature Radical New Design

The Cycloptic Series Stereoscopic



Microscopes have a new design which results in greater comfort, greater ease of use, and lower prices. Called the Magni-Changer, the basic component of the new design is a numerically calibrated cylinder containing 16 achromatically corrected optical elements. Desired magnifications are simply "dialed-in" by rotation of the unit. Resultant magnifications range from 3.5X to 80X.

A wide variety of models are available for laboratory and general use. AMERICAN OPTICAL, INSTRUMENT

Div., Buffalo 15, N. Y.

SE-411

Hi-Fi Record Players Have Dual Loudspeakers



Two record players, both hi-fi models excellent for music appreciation classes, have been introduced by Audio-Master Corp. Model 48 (illustrated) features the Collaro motor with the two-piece tone arm. The cartridge and shell plugs into the base of the arm and is easily removed and replaced. This unit has two dual loudspeakers; one hi-fidelity 6" extended range and a 4" tweeter as well as full range variable bass, treble and tone controls and special jack for earphones.

The other new model, 47, also has dual loudspeakers, a GE reluctance cartridge, full range variable bass, treble and tone control as well as a special jack for earphones.

AUDIO-MASTER CORP., 17 E. 45 St., New York 17, N. Y.

SE-295 THE LOW-COST WARDROBE USED IN MORE NEW, SCHOOLS



Write for Folder

Practical, easy to install, this compact convenient coat and hat rack is exceptionally low in cost. Longlasting, finely engineered in non-peeling alumilite

When desired makes an ideal space saving unit combined with the commodious teacher's wardrobe and supply closet and smooth, fire-proof gliding curtaining.



A. R. NELSON CO., INC.

210 East 40th St., New York 16



SE-412

Manual Arts Products Now Being Marketed for Retail Use

Armour and Co. are now offering their sandpaper and glue products for retail sale. Sandpaper is sold in cut and full sheets, discs, belts, rolls. Handy Home cut sheets fit all electric and hand sanders and give excellent finishing results because of their quality and uniform grain structure. All sizes are made from the finest Garnet and Garalun abrasives. Grits are extra fine, fine, medium, coarse, and assorted in a variety of sizes.

ARMOUR AND Co., Alliance, Ohio.

SE-413

New Prang Color Mixes with Starch

It has been found that Prang Powder Tempera Colors can be mixed with the household Sta-Flo Liquid Laundry Starch to produce a superior school painting and craft medium. This Sta-Flo painting mixed paint can be easily used in a variety of delightful combinations and costs much less than ready-packaged col-

Another feature is that colors will not spill or drip off the brush and cleaning is easier too-colors wash out as easily as liquid starch alone.

This color-starch combination can be used with brush, stencil, silk screen and finger painting. It is adaptable for easel painting, play props, modeling, holiday settings and other crafts.

THE AMERICAN CRAYON Co., Sandusky, Ohio.

SE-414

Modeling Compound **Ends Modeling Clay Mess**

Play-Doh is a new kind of modeling compound designed especially for young children to use by themselves with a minimum of adult supervision. It is absolutely clean, non-sticky, and non-staining to hands, rugs, floors and furniture.

Play-Doh is ready to use immediately, requires no moistening, kneading, etc. It may be reused for



extended periods if replaced in the closed container in which it is packed. Colors are brilliant red, yellow, blue and natural.

RAINBOW CRAFTS, INC., 2815-C Highland Ave., Norwood 12, Ohio.

New Recorder

SE-415

Equipped for Automatic Recording

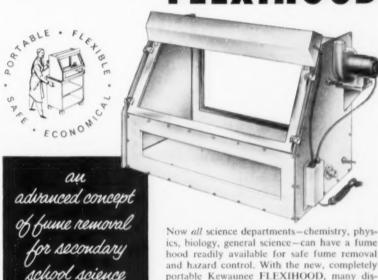
The Recordio Coronet starts automatically to take off-the-air or microphone pickups. There is a built-in eight tube superhet radio and telechron clock with automatic time switching facilities.

This model has 7 speakers for three - dimensional, high - fidelity sound, one of which is a 12" public address type on a removable baffle for wall hanging.

WILCOX-GAY CORP., 743 N. LaSalle St., Chicago, Ill.

SE-296

NEW KEWAUNEE FLEXIHOOD



FREE PLANNING MANUALS

See Kewaunee's new concepts of equipment design and classroom arrangement. Check coupon for free 44-page catalog of Educational Laboratory Equipment and 48-page Planning Manual.

hood readily available for safe fume removal and hazard control. With the new, completely portable Kewaunee FLEXIHOOD, many distinct advantages are gained: FLEXIBILITY. Readily moved to serve all science depart-

ments, permitting maximum convenience for class dem-onstration. Easily connected to present service facilities. Exhaust system may be floor, window or ceiling. SAFETY. Assures complete safety in fume removal and hazard control at any location. Meets all requirements of State Boards.

ECONOMY. Substantial savings over fixed hood system. Less first cost; lower installation cost; no separate plumbing cost; no expensive blower and duct system required; lower maintenance cost; less heat loss.

COMPACTNESS. Saves valuable space. Only 361/2" wide (43" with blower), 25" high, 20" deep.

Kewaunee

KEWAUNEE MFG. CO., Adrian, Mich.

REPRESENTATIVES IN PRINCIPAL CITIES

MAIL COUPON FOR FULL DETAILS -----

KEWAUNEE MANUFACTURING CO. 5031 S. Center St., Adrian, Michigan

Send free literature on FLEXIHOOD.

Send free Laboratory Manuals 5 and 5A.

Name Title

Address

POWERS Temperature Control in 1915 and POWERS AGAIN in the

new Highland Park High School

"Because of the many years of dependable control obtained from Powers equipment and the prompt service received whenever required in our old buildings, another Powers temperature control system was installed in our new high school which was planned to meet the needs of 2,000 students" ... Mr. E. W. Zaeske, Supt. of Buildings and Grounds.

Functional and architectural features of Highland Park's new high school have been carefully executed to conform to the highest quality of modern school design and to meet the stipulation of keeping future maintenance costs at a minimum.

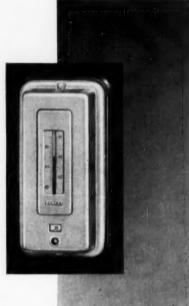
Since 1891, Powers temperature control systems have been noted for their low operating and low maintenance cost. 25 to 50 years of dependable operation with a minimum of repairs is reported by many satisfied users.

Comfort and Fuel Economy in the 87 classrooms and other spaces here are provided by a Powers control system which regulates the following heating and ventilating equipment:

A Powers MASTROL system regulates the temperature of the forced hot water supplied to convectors under the control of a Powers thermostat for each space. Ventilation is provided by Powers controlled fan units located throughout the buildings.

Natatorium is Unique in that provision is made for the comfort of spectators as well as the swimmers. Convectors in the pool area maintain air at 86° F. while spectators are blanketed with air at 76 to 78° F.

If You Are Planning a New School or remodelling an old one, ask your architect or engineer to include a Powers Quality system of temperature control. You will help insure utmost comfort and lowest upkeep cost.





THE POWERS REGULATOR COMPANY

SKOKIE, ILLINOIS Offices in chief cities in U.S.A., Canada and Mexico

65 Years of Automatic Temperature and Humidity Control



Symbol of Economy and Quality Control



Typical Classroom



Library



Band Room in Music Dept.



Highland Park, Illinois, High School

Loebl, Schlossman & Bennett, Architects Samuel R. Lewis, Consulting Engineer Gust K. Newberg Co., General Contractor Adelman Heating Corp., Heating Contractor All of Chicago, Illinois

Photos below show one of the 87 classrooms and some of the other spaces controlled by POWERS



Cafeteria and Multi-Purpose Room



Exhibition Gymnasium



Swimming Pool 50 x 75 ft.

TEACHING MATERIALS

SE-416 Laboratory Flask Support Prolonged Heat Won't Damage

The new neoprene flask supports for round-bottom flasks, have an outstandingly long life, even after prolonged exposure to heat.

The new rings simplify storage, too. A bottom ridge on each ring interlocks with the top of the ring under it; a stack stays in place on the shelf. Another advantage is that the rings don't slip on bench tops,



wet or dry. Finally, the shock-resistant qualities of neoprene make the rings ideal when stirrers or vibrators are used with the flask.

FISHER SCIENTIFIC Co., 411 Fisher Bldg., Pittsburgh 19, Pa.

SE-417 Paint Applicator For Free-Hand Decorating



Amazart is a one-ounce metallic tube with a built-in ball-point dispenser on one end utilizing a special paint. Designed primarily for craft work, interesting free-hand decorations are possible without stencils or

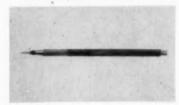
The paints may be applied to fabrics, wood, glass, pottery, plastic, tile, metal and other smooth surfaces. They dry fast and provide a rich, indelible surface decoration.

BINNEY & SMITH, INC., 380 Madison Ave., New York, N. Y.

Lead Holder

SE-418

For Draftsmen, Engineers



Draftsmen, designers and engineers are now assured of a lead holder which offers positive protection against lead slippage and turning. The Damascus also has a selfcleaning clutch which eliminates build-up and clogging from graphite particles and holds the lead in an immovable grip.

The hardened-steel clutch and socket of the lead holder assures maximum life and resists abrasives when sharpening points.

RICHARD BEST PENCIL Co., Springfield, N. J.

REALOCK FENCE



... the permanent protection for schools and municipal property

Realock Fence offers positive and permanent protection for school and municipal property by providing an effective, ever-present barrier against vandals and other unwanted visitors. What's more, Realock's neat, welltailored look improves the appearance of the area it protects.

Heavily galvanized for long-lasting weather resistance, Realock Fence is available in a wide variety of typeswith or without barbed wire tops. Full details and free estimates available ... see your classified telephone directory for sales office or write to the nearest office listed below.

THE COLORADO FUEL AND IRON CORPORATION, Denver and Oakland WICKWIRE SPENCER STEEL DIVISION, Buffalo, New York



THE COLORADO FUEL AND IRON CORPORATION



BRANCHES IN ALL KEY CITIES

TORTURE TESTS PROVE SAMSONITE BEST CHAIR FOR SCHOOL USE

School Board Job Can Be Dangerous

It's hard work-and dangerous-being a school board member. That is if you take it conscientiously, as member Verley T. Spivey yesterday proved he does.

With a continuing building program under way in an effort to house the system's swelling enrollments, plenty of school equipment is needed.

Then he returned to his seat.

Board Chairman Ned Searcy askhouse the system's swelling enrollments, plenty of school equipment is needed.

Thousands of steel folding chairs are among this.

It has been confusing. And board members, charged with apending the tax-payers' money wisely and stretching a taut budg-et, have been anxious to purchase the right chair.

the right chair.

Some weeks ago, they investigated federal specifications. Only two concerns could meet these, it was stated. One representative offered testing facilities of his parent firm.

With five companies bidding, the board delayed the award at last session, requiring authentication from bidders that their chairs meet federal specifications. All five bidders furnished proof that their chairs met modified specifications and outlined tests.

Yesterday the matter was be-

their chairs met modified specifications and outlined tests.

Vesterday the matter was before the school board again. So were the representatives. So were their samples.

When the item was reached on the agenda, Member Verley T. Spivey stepped silently and expressionlessly from behind the semi-circular board table.

He picked up a chair, applying strong pressure to the back-rest. It buckled. Spivey put it aside, chair through the test.

Spivey jumped on the chairs. Board members watched in awe He dropped them on the floor legs, first. A leg on one of the finest chairs opened at the seam. He stacked it with the rejects. He stacked it with the rejects. He did not amile and he did not speak. On went the strenuous Spivey test.

Pinally one chair remained.

Finally one chair remained, stalwart. It was stained with blood. Spivey had ripped a finger in the vigorous effort.

REPRINTED FROM JACKSONVILLE JOURNAL

of Florida, April 6, 1956

Mr. Spivey shows how he "tortured" Samsonite but couldn't hurt it!

Thousands of steel folding chairs are among this.

At meeting after meeting representatives.

At meeting after meeting representatives of school furniture concerns have been present to demonstrate their chairs and to give reasons why they are superior regardless of price.

It has been confusing. And

The award was for 2350 chairs at a cost of \$8.704.80 The board then ordered 59 more for good measure. The contract went neither to the highest nor the lowest bidder.

"Thank you for the award," said the winning representative ap-preciatively, "I hope it was not out chair which hurt your finger, Mr.

The chairman called for next item on the agends. The school superintendent called for bandages and merthiolate.

The matter was closed



In Sensational Test of 5 Different Chairs, Mr. Verley Spivey of Jacksonville, Florida School Board Shows How Only Samsonite Stood Up Under Banging, Dropping and Jumping!



1. He Dropped Samsonite...
But Couldn't Hurt It!



2. He Stomped on Samsonite...But Couldn't Bend It!



3. He Tried to Crush



4. Result? A Big Order For 2,350 Samsonite All-Steel Folding Chairs!

Read it for yourself-the newspaper account of the most grueling tests ever given any chairs! 4 competitive brands of chairs, bidding for a Jacksonville school contract, were banged, dropped, crushed, jumped on by Mr. Verley Spivey of the Jacksonville School Board. While the others opened at the seams, bent or buckled, only Samsonite all-steel folding chairs stayed firm ... were still in good working condition! Samsonite was awarded the contract by unanimous approval! Here is the most convincing proof you can have that Samsonite is the strongest, most practical, safest chair for schools in America! See for yourself. Write for the new Samsonite Institutional Seating Catalogue, today!

FOLDING CHAIRS ... STRONGEST, LAST LONGEST



New DODGE **PowerGiant** School Bus Chassis

You'll heartily approve of the thorough safety-first engineering job Dodge has done in these '57 models to protect your children.

Check on it, personally. You'll find that Dodge offers new reserves of V-8 power for safer hill ascents, and new, independent headlight circuits that keep lights on, even if other parts of the electrical system short out. You'll find that Dodge brakes . . . axles . . . springs . . . frame members . . . and virtually all other parts you can name, meet or exceed N.E.A. standards. Get a bid from your Dodge dealer before you decide. It's to your advantage.

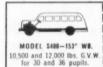
HERE ARE JUST A FEW OF THE MANY SAFETY-FIRST FEATURES DODGE OFFERS:

- New V-8 power for safer hill ascents.
- New independent headlight circuits.
- 12-volt electrical system.
- · Independent parking
- brake adjusts from driver's seat.
- Tubeless tires slow-w-w-out instead of blow-out.
- Self-energizing rear brakes for more stoppower.

DODGE TRUCKS

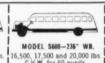
WITH THE FORWARD LOOK

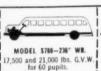
School Bus Chassis for Bodies Accommodating 30, 36, 48, 54, 60, and 66 Passengers









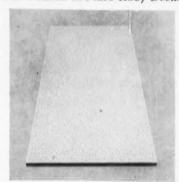




CLASSROOM EQUIPMENT

SE-419

Acoustical Formboard For Poured-in-Place Roof Decks



Acoustical Formboard with a Full Random sound conditioning interior surface has been designed for use with light-weight, poured-in-place roof decks. The product is composed of a ½" layer of asphalt-impregnated Temlok fiberboard laminated with a vapor-permeable adhesive to a ½" layer of Armstrong Cushiontone acoustical material.

The random perforation pattern gives the material a noise reduction coefficient of .55 and adds a decorative note to the ceiling. Available in 24" x 48" size, 1" thick.

ARMSTRONG CORK Co., Lancaster,

SE-420

Rubber Tile Flooring For Heavy Duty School Use

Tweed Rubber Tile is a tough, long-wearing floor that withstands much abuse. High resiliency is another plus for schools where comfort and noise-silencing is important.

It is also extremely slip-resistant.

Many attractive patterns are possible with the eleven beautiful colors.

AMERICAN MAT CORP., 1741

Adams St., Toledo 2, Ohio.

SE-421

Vinyl Wall Covering In Greek Letter Motif

Omega is a new pattern featuring a small greek letter motif on a tweedy textured background in Bolta-Wall vinyl wall covering. Available by the yard, it comes in shades of April



Yellow, Bayou Green, Brite Turquoise Green, Reef Coral, Buff and Polar White. The colors are twotoned with the design in a lighter shade of the background color.

Highly resistant to stains, scratches, scuff-marks and abrasion, the wall covering is easily cleaned with soap and water.

THE GENERAL TIRE & RUBBER Co., Bolta Products Div., Lawrence, Mass.

VOTE NOVEMBER 6!

SE-302

for versatility in Schools... Specify

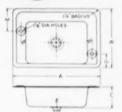
SUNROC all-purpose DECK TYPE



STAINLESS STEEL in FOUR CONVENIENT SIZES

MODEL	A	В	C	D	E
500-10	24"	14"	7"	5"	5'
500-20	24"	16"	7"	5"	5'
500-30	26"	18"	7"	6"	6
500-40	30"	18"	7"	6"	6'

Stainless Steel Rim for water-tight seal, and large Chrome-plated strainer with drain supplied as standard equipment.



WIDE VARIETY OF FIXTURES AVAILABLE

water coolers • water coolers • water coolers • water coolers

Brouch Offices in principal cases CORPORATION GLEN RIDDLE, PA

CLASSROOM EQUIPMENT

SF.422

Intercom Control Center

Is Especially Practical for Schools

The Consolette is a ruggedly constructed dual channel system which provides intercommunication, music distribution and paging for from one to 40 speaker locations.

The dual channel operation permits voice transmission and paging, music distribution, alarms or general announcements to be carried on at



the same time. The unit is also equipped with a simple snap-on emergency all-call switch.

Other special features include a built-in AM-FM radio tuner, inputs for a tape recorder, record player and microphone (either high or low impedance), three position telephonetype selector keys, an overload indicator to prevent distortion, separate incoming and outgoing volume controls and a three-position program selector switch (for phonograph, radio tape recorder).

WEBSTER ELECTRIC Co., Racine, Wis.

SE-423

Laboratory Benches

Built to Specifications



Special laboratory benches-built to customer specifications with air, gas or vacuum cocks here, an electric outlet there or other departures are now standard items at the Hallowell Div. of the Standard Pressed Steel Co.

The steel benches are tailored by SPS from standard Hallowell components to offer substantial savings to schools.

HALLOWELL Div.. STANDARD PRESSED STEEL Co., Jenkintown, Pa.

SE-424 Music Room Chair With Folding Tablet Arm

A folding chair specifically designed for use in music rooms has been announced by Clarin Mfg. Co. This chair makes it possible to use the band room for both instrument practice and music instruction. There is a convenient tablet arm for classwork and a posture-type construction. The seat height is 18" above the floor while the seat and back are at a 100° angle to each other.

The tablet arm may be folded down alongside the chair in order not to interfere with band practice. When up, the tablet arm provides a writing surface at a scientifically determined height.

CLARIN MFG. Co., 4640 W. Harrison St., Chicago 44, Ill.



- * Each unit a SAFE stand in itself
- * 4'x8'x3/4" Tops, 8"16" 24" 32" heights

PORTABLE

* Strong, rigid TUBULAR STEEL LEGS

Write for Descriptive Folder

MITCHELL MFG. CO. 2726 5. 34th St. . Milwaukee 46, Wis.

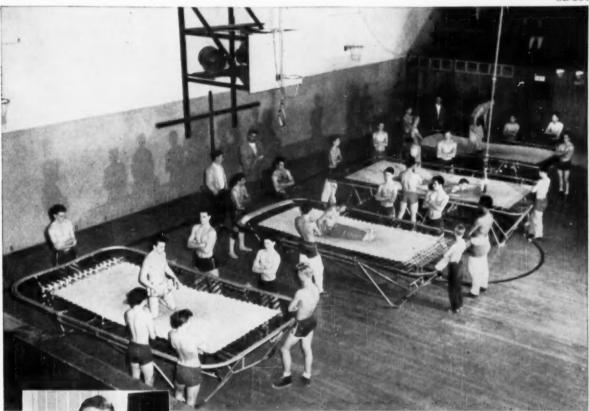
MFRS. of MITCHELL FOLD-O-LEG TABLES, BAND AND CHORAL STANDS, SEATING RISERS

1-LEVEL PLATFORMS, STAGES

For speakers, raised speakers tables, cere-monies, acts, style shows. Quick set-up or removal. Used in Schools, Colleges, Churches, Hotels, Clubs, Lodges. Each unit only 2½" thick when folded. Store in small space.

USE THE SAME UNITS FOR

MANY DIFFERENT ARRANGEMENTS



SEQUOIA UNION HIGH SCHOOL, REDWOOD CITY, CALIFORNIA

"Nothing like a NISSEN TRAMPO

"Sequoia High School students have been bouncing on Nissen Trampolines since 1941," says Clyde Devine. "Fifteen years of trampolining have taught us that there is nothing like a Nissen Trampoline for the ultimate in performance and durability. All of our diving champions at Sequoia have learned their fundamentals on the Nissen, including Don Harper, member of the 1956 U.S. Olympic diving team, who last year won the NCAA Trampoline Championship and also captured the trampoline event at the 1955 Pan American Games.

Frank Griffin, our director of Physical Education for Boys, considers this activity a "must" for advanced students."

MANY ADVANTAGES

Nissen Trampolines require no adjustment whatsoever . . . allow a completely clear area under the bed . . . fold in a flash for easy out-of-theway storage . . . and offer a choice of Trampoline styles to fit any individual school's need. If you'd like to learn about how Nissen Trampolines will fit into your school gymnastic and physical education program,

swimming coach for 20 years at Sequoia Union High School . . . former Billy Rose performer and presently owner of three swimming and beautiful to the swimming and the swimming swimming and trampoline schools.

COACH CLYDE DEVINE

Football, gymnastic and

TRAMPOLINE COMPANY CEDAR RAPIDS, IOWA, U.S. A

NISSEN TRAMPOLINE CO.

215 A Avenue, N. W., Cedar Rapids, Iowa, U. S. A.

Please send new 16-page catalog, illustrating and describing Nissen Trampolines, and name of nearest dealer.

SEN TRAMPOLINE CO., LTD.	NAME OF SCHOOL	pt m seems selection of	
LONDON, ENGLAND	CITY	ZONE	STATE
rita MISSEM W WAR & TRAMPOLINE	BY	TITLE .	

CLASSROOM EQUIPMENT

Fire Alarm System SE-425 Suitable for Schools

An approved fire alarm system designed for the needs of schools has been announced by the Edwards Co. The system provides a continuous coded alarm until manual or automatic alarm stations are restored to normal condition.

Operation of any alarm station ac-

tuates a motor driven code mechanism for continuous transmission of predetermined alarm signals through all warning devices. Chimes, single stroke bells or horns can be used. They should be readily distinguished from normal paging or programming signals.

The fire alarm system is supervised through a control panel that contains a Telechron master coding device, a milliammeter, time limit cut-out, fuses, control relays, resistors and terminals. A trouble bell is

supplied for warning when circuits are accidentally opened or grounded.

THE EDWARDS Co., Inc., Norwalk, Conn.

Posture Chair SE-426 Designed for Typists



Posture Chair, Model 48, equipped with plywood seat and back, has been developed for use in the typing departments of schools and colleges.

The elimination of upholstery serves to avoid damage and wear, and reduces the cost of correct posture seating by 25%. Three simple hand wheel adjustments on each chair provide comfortable typing posture for persons of large or small stature. Chair frames are available in any color to match existing equipment.

DESKS OF AMERICA, INC., Bridge-port 6, Conn.

Adjustable Caster and

Glide

Has Self-Locking Leveling Feature

A new Lokswiv double ball-bearing adjustable caster and glide combination provides fast on-the-spot finger adjustment, designed for leveling, stabilizing and protecting equipment or furniture when used on uneven floors.

An outstanding feature of this design is the choice or alternate use of a plastic base adjustable glide in place of the wheel type. Simply screw out the wheel and screw in the glide. The phenolic plastic base glides are available in 1½", 1½" and 2" diameter sizes.

ADJUSTABLE CASTER Co., 1411 Walnut St., Philadelphia 2, Pa.



LIBRARY COMFORT

We at Sjöström of Philadelphia know that Johnny and Jane can
and like to read. That's why our "New Life" library furniture includes
quality-comfort juvenile items of inherent beauty,
seen here at San Diego Public Library.

John E. Sjöström Company, Inc.
1717 NORTH TENTH STREET, PHILADELPHIA 22, PA.



COLUMBIA'S EDUCATIONAL RECORDS HELP DO THE TEACHING IN TODAY'S SCHOOLS!



More and more teachers are discovering how valuable records can be as supplementary training material in a wide range of subjects-from History, Music Appreciation and Social Studies to Language Arts, Science and Sports. Today, more and more schools are looking to Columbia's Educational Department for ideas such as these:

THE HF-1 PHONOGRAPH-a high-fidelity instrument designed expressly for use in schools and libraries. Extremely versatile, it can provide "silent listening" for a few or play to an audience of 500! List \$79.95. Attachment kit (optional) with 4 sets of earphones, list \$39.95.

RECORDS FOR SCHOOL-this FREE illustrated booklet is your guide to the world's largest catalog of Lp records, and how to use them effectively in education.

WOULD YOU LIKE A DEMONSTRATION OF THE MODEL HF-17 MAY WE SEND YOU COLUMBIA'S FREE EDUCATIONAL CATALOG?

	W1111	001	I PO PO S S
MANI	THIS	1.111	I DO C I NA

Columbia Records, Box F Educational Department 799 7th Avenue, N. Y. C.

- I would like your repre sentative to call and demonstrate, with no ob-ligation, the HF-1 with earphone attachment.
- () I would like to receive Columbia's free catalog of educational records.

CLASSROOM EQUIPMENT

SE-428

Audiometric Testing Rooms

Assure Validity of Audiograms

Series 200 is a new general purpose lower cost audiometric testing room. Featuring such new developments as: noise-lock doors, windows and vent silencers; rubber cushions;



floating floors; audio-meter jack panel and noise-lock corners and joints, these series 200 testing rooms provide sound levels necessary to give trouble-free audiometric tests.

The prefabricated rooms are easily assembled, dismantled, and are movable from one location to another.

Industrial Acoustics Co., Inc., 341 Jackson Ave., New York 54, N. Y.

SE-429

Open Reflector Downlight Engineered for Maximum

Engineered for Maximum Efficiency



The Century 980 Series Downlite is especially recommended for use in auditoriums. All of the brightness is contained in a 90° cone of light. Outside of a 45° viewing angle, there is no brightness or glare. The exceedingly high light output reduces the number of ceiling openings required. Units are designed for top and bottom access.

Available with "gold glow" and "perfection pink" reflectors, this unit utilizes a 300-500 watt R-40 lamp.

CENTURY LIGHTING, INC., 521 W. 43 St., New York 36, N. Y.

Blowout Urinal SE-430

New Unit Introduced

The new Challenge vitreous cina blowout urinal by Universal-Rundle Corp., features extended side shields with integral flush spreader and strainer. The Challenge has a 11/4'' top spud for exposed flushometer use or is available with a 11/4'' concealed back spud for concealed flushometer

Available in A/R Enamel in white and six U/R colors.

Universal Rundle Corp., New Castle, Pa.



Before you spend money or budget for maintenance on roofs, floors, windows, interior or exterior painting, or waterproofing, take a look at Tremco's Revised School Building Maintenance Program—free for the asking.

For 28 years, Tremco field representatives have worked with school personnel in the development of sound, economical building maintenance techniques for all surfaces, inside and out. What the Tremco Man can do for you is contained in a 20 page booklet which is saving large and small school systems thousands of dollars yearly. No obligation. Ask your Tremco Man or write The Tremco Manufacturing Co., 8701 Kinsman Road, Cleveland 4, Ohio.





Need extra funds?

MAKE BIG PROFITS FROM POPCORN WITH A CRETORS

If your school has an athletic program or any other crowdgathering activities, you can

make big profits popping and selling wholesome popcorn with a CRETORS machine
... The new CRETORS "Holiday" Floor

Model (illustrated) can turn out \$30.00 worth of popped corn per hour... No special wiring required. Anybody can operate... Many other models available, including "Holiday" Counter Model.

Cretors POPCORN MACHINES

SALES OFFICES: CRETORS, Popcorn Bidg., Nashville, Tenn., FACTORY: Chicago, Ill. Distributors Coast to Coast IN CANADA: Super Puff's Ltd., Toronto. • Theatre Confections Ltd., Toronto. • Service Confections, Ltd., Winnipeg.

SE-309



Trim Line design. Heywood-Wakefield, School Furniture Division,

Gardner, Mass. and Menominee, Mich.





Dependable Locker Guardians

NATIONAL LOCK Combination Locks



Check these
QUALITY
FEATURES

SHACKLE LOCKS

- · Sound engineering
- Sturdy components
- · Brass working parts
- · Chromium plated shackle
- · Stainless steel outer case
- Self-locking
- · 3-number dialing
- Available with or without masterkey feature

BUILT-IN LOCKS

- · Rugged construction
- Attractive styling
- · Baked enamel dial
- · Zinc plated bolt and box
- · 3-number dialing
- · Self-locking
- · Fit all standard lockers
- Available with or without masterkey feature

Master charts for lock records, complete with leatherette binder, are supplied FREE with quantity lock purchases. Write on your letterhead for FREE sample lock,

ASK ABOUT OUR LABORATORY-CABINET LOCKS, TOO.



COMPANY

Rockford, Illinois LOCK DIVISION

CLASSROOM FQUIPMENT

Folding Table

Utilizes New Construction Principle

The Superbilt Plywood Top Table is built around a new construction principle. Its one-piece top is 34" puncture-proof plywood, with an oak surface protected with clear Plasti-lac washable finish, a new bump resistant lacquer which withstands dampness and water.



The plywood top is also completely armorelad with a continuous strip of natural polished aluminum. This is a heavy gauge 23/4" deep metal apron, beaded at the bottom to prevent tracking damage. The aluminum is T-locked into the table top, providing an exceptionally rigid joint.

The table has standard patented legs, set back from the end of the table, and curved to allow knee-room. The thumb-pressure locking device locks automatically, cannot be accidentally released.

JAMES P. LUXEM Co., 3344 Lincoln St., Franklin Park, Ill.

Baseboard Radiation

Designed for All-Purpose Installation



A new line of Rittling 580 Baseboard Radiation features new low cost per BTU and single unit design for all-purpose installation including free standing, semi or fully recessed. The enclosure is engineered to secure maximum stacking effect and efficient air handling for maximum heat transfer.

The heating element uses 7/8" O.D. copper tube and rigid .017" steel fins. The fins are embedded in tube to provide tight metal-to-metal bond and high heat transfer efficiency.

THE RITTLING CORP., Buffalo 5, N. Y.

Paper Cutter SE-433 Is Low in Cost

One smaller size (85%") and one larger size (201/2") have been added to the line of Michael 14" paper cutters. The 85/8" size will serve duplicating departments with Mimeograph, Ditto and other small equipment, while the improved 201/2" machine can cut and trim for the larger duplicating machines up to 14" x

The machines offer heavy steel construction and automatically lock with safety latch.

MICHAEL LITH, INC., 145 W. 45 St., New York 36, N. Y.

SE-311

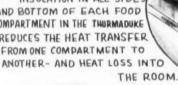
HOU GOOD EX

FOOD TASTES BETTER-KEEPS LONGER WHEN IT'S STORED IN A NEW THURMADUKE

WATERLESS FOOD WARMER WITH INDIVIDUAL HEAT CONTROL IN EACH FOOD COMPARTMENT, THAT'S BECAUSE ALL FOODS DO NOT KEEP BEST AT THE SAME TEMPERATURE. MEATS KEEP BEST AT 145°- SOUPS

AT 180°- MASHED POTATOS AT 125°- ETC.

COOLER ROOMS-BETTER HEAT CONTROL-INSULATION IN ALL SIDES AND BOTTOM OF EACH FOOD COMPARTMENT IN THE THURMADUKE REDUCES THE HEAT TRANSFER FROM ONE COMPARTMENT TO





COSTS DIMES-NSTEAD OF DOLLARS

TO OPERATE, OWNERS REPORT SAVINGS AS GREAT AS 80% OVER THEIR PREVIOUS FOOD WARMER. ASK YOUR THURMADUKE DEALER TO SHOW YOU WHY THURMADUKE SUPERIOR DESIGN PAYS FOR ITSELF.

WRITE for complete information and specifications on ☐ Food Warmers ☐ Cafeteria Counters. Check and mail to Duke Manufacturing Co., 2305 No. Broadway, St. Louis 6, Mo. Write your name and address in space below.

tops in class

BOSTON KS

efficient -30 hard-steel, deep-milled cutting edges cut swiftly and neatly -BOSTON pencil stop prevents waste

rugged -strong, die-cast frame and steel k-nickel-plated steel receptacle

adaptable - snap guide takes 8 pencil sizes

dependable _guaranteed 1 year _ even against



specify BOSTON





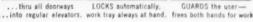
C. HOWARD HUNT PEN CO.

Also mfrs. of SPEEDBALL pens and products

LET SAFE-LAD CUT YOUR COSTS FOR OVERHEAD MAINTENANCE

ROLLS ALL SUPPLIES RIGHT TO THE WORK







LOCKS automatically.



GUARDS the user

Stability exceeds American Standard Safety Code. Saves time for institutional users coast to coast. A model to fit your needs. Write for literature and prices.

SAFE-LAD Manufacturing Company 1001 S. E. MORRISON - PORTLAND 14, OREGON

audio-visual education in



LuXout Light Control Draperies shown above eliminating outside light in a typical classroom.



LUXOUT DRAPERIES WILL ADD BEAUTY AND WARMTH TO ANY CLASS-ROOM . . PLUS CONVERT VISUAL PROJECTION ROOM IN SECONDS!

Here are a few of the reasons why LuXout is the leader in its field:

- · Only LuXout Draperies are available in the popular DUR-O-LITE vinyl plastic material which assures a rich, luxurious appearance.
- LuXout Draperies can vary outside light from an elimination of glare to total darkness.
- · All LuXout Draperies are permanently flameproof.
- · Although each installation is custom styled, LuXout Draperies are more economical than most other forms of light control.

Before you select any form of light control, consult your LuXout distributor or write for free color listing, samples and new descriptive brochure.

Audio-Visual Department SE 1822 E. Franklin Street Richmond 23, Virginia

CLASSROOM EQUIPMENT

Loudspeakers

SE-435

Two New Models Introduced

Rockbar Corp. has announced the addition of the Midax mid-high frequency and Trebax high frequency speakers to the present line of Goodmans loudspeakers.

The Midax is a pressure type middle range and high frequency driver and exponential, flared horn



with a frequency coverage up to 3,000 cycles. Its impedance is 15 ohms. Recommended cross-over frequencies are 750 and 5,000 cycles. Overall length from rear of driver to front of horn is 20 1/4".

The Trebax is a high frequency reproducer with a built-in horn. Its frequency response extends up to 15,000 cycles. The recommended crossover frequency is 5,000 cycles. Impedance is 15 ohms. Overall length from rear of driver to front of horn is 3 3/4".

The Midax and Trebax speakers are designed to be used in conjunction with the Goodmans Audiom Woofer to form a three-way speaker system.

ROCKBAR CORP., 650 Halstead Ave., Mamaroneck, N. Y.

SE-436

Water Cooler

Is Stainless Steel, Inside and Out



All-stainless-steel construction is now available in seven models of Temprite's self-contained drinking water coolers. Capacities range from 5 g.p.h. to 27 g.p.h. Both air-cooled and water-cooled condensing units are available. Featured is a combination finger-tip and toe water flow control: dual thermostats for highly accurate water temperature control; silver soldered joints; moisture and vermin-proof insulation, etc.

TEMPRITE PRODUCTS CORP., East Maple Rd., Birmingham, Mich.



You eliminate the high cost of repeated effort, inadequate suction, and old style tool equipment when you choose a Super Suction® cleaner. The Super line includes heavy duty, wet and dry pick-up to meet massive requirements as well as real commercial performance in lightweight, low cost units for small capacity work.

Super Suction® cleaners and specialized Super tool equipment simplify and speed'school cleaning. The Super is quiet and may be used any time of the day or night without disrupting regular school routines and activities. Easy portability and thoroughness make the Super the ideal choice of women operators. 7 models. Specialized tools for suction and blowing.



Easy rest switch eliminat grip effort. Oversize, no marking rubber wheels ma fransportation easy. On Super Floor Machines.

SE-315

Super Service Floor Machines

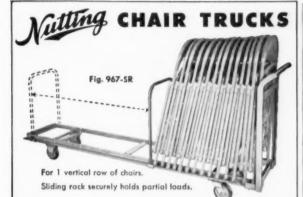
scrub, buff, sand, steel wool, grind, scour all types of floor surfaces. Four sizes—13", 15", 17" and 20" provide a brush size for every capacity and budget requirement. They are of simple design and rugged construction—no service problem.

Your Super dealer will be glad to demonstrate any model anytime on your premises. Write for catalog and data.

THE NATIONAL SUPER SERVICE COMPANY 1947 N. 13th ST. TOLEDO 2, OHIO

SALES AND SERVICE in Principal Cities





Built to outlast the chairs!

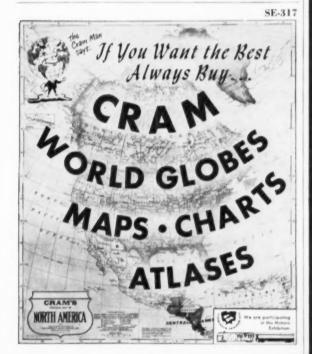
Here's your topnotch chair truck value. Nutting's high grade materials and fine workmanship give you year in, year out economy. Do Ample size steel frames and ball bearing rubber tired wheels of adequate diameter insure longer life and easiest operation under heavy loads. Finished in attractive metallic grey.



Write for Chair Truck Literature and Bulletin 53-SC, which shows food service, classroom maintenance trucks and others.

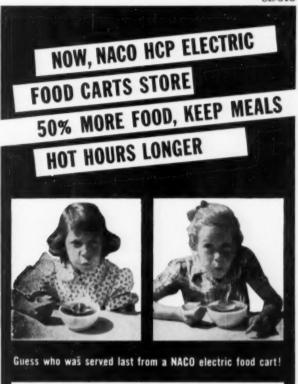
Since 1891 NUTTING TRUCK & CASTER CO.
2607 East Division St. • Faribault, Minn.





Save money—Let a Cram man call and survey your equipment and help you plan a buying program for your school. Send for Cat. 88-B.





The girl on the left was last, yet her meal stayed hot, too, because now all NACO HCP models have strip heaters in both top and bottom sections.





And cleaning is a breeze. Tray runners formed on one-piece, die-stamped side panels replace separate angle irons. No cracks or crevices to catch dirt.

Food stays hot hours longer, even in the lower sections because new strip heaters have been added, as well as Fiberglas insulation in the base. Louvered walls allow uniform heat circulation inside compartments.

The new NACO Model HCP-2000 stores 50% more food than Model HCP-165 - actually 373, 26 oz. meals for children or 220 adult-meals, averaging 44 ozs.

Both Models HCP-165 and HCP-2000 available in standard and deluxe stainless-steel finishes. For Complete information, write:

ATLAS DIVISION
NATIONAL CORNICE WORKS
1323 Channing Street
Los Angeles 21, California

Louver-Diffuser SE-437 Reduces Direct, Reflected Glare

CurtiCell is a unique plastic louverdiffuser enclosure for lighting fixtures. It combines a molded cellular louver bottom and a flat top diffusing panel into a single electronicallyfused louver unit.

The cellular portion, which may be



either translucent white or clear plastic with frosted finish, controls direct glare. The frosted diffusing panel reduces reflected glare. Direct light rays pass through four or more thicknesses of plastic, resulting in soft, efficient lighting without distracting brightness.

Curtis Lighting, Inc., 6135 W. 65 St., Chicago 38, Ill.

Drinking Fountain SE-438 Four New Models Available



American-Standard announces four new drinking fountains offered in vitreous china, in seven colors and white, with non-tarnishing Chromard fittings. They include: the Calistoga, high back model with handy push button glass filler; the Saratoga (illustrated), wall hung model with low back; the Sharon, completely re-designed compact, wall-hanging model; and the Tioga, re-designed semi-recessed model.

The new-design drinking fountains are equipped with a shield to prevent direct contact with the nozzle, and an anti-squirt device. The anti-squirt device is a slot milled horizontally into the waterway; if the nozzle is covered, water is directed through the slot and downward into the bowl area.

AMERICAN RADIATOR & STANDARD SANITARY CORP., PLUMBING AND HEATING DIV., Pittsburgh 30, Pa.

Emergency Light SE-139 Is Safe, Positive

The Radar-Lamp features a cottage-type light-head incorporating a compact $2\frac{1}{2}$ " x $2\frac{1}{2}$ " circular unbreakable clear chimney which throws a wide circle of bright light. It is windproof and weatherproof and utilizes a positive action silver contact switch.

The lamp is powered by a new two-in-one dry battery.

BURGESS BATTERY Co., Freeport,





HAIRPINLINE Cold Cathode lighting fixtures eliminate annoying glare

The "X" shape of a Hairpinline Cold Cathode fixture provides about 64 square feet of light source. Six Hairpinline fixtures in a standard classroom create a uniform, low-brightness, glare free light over the desks and on the blackboards. Such uniform light can not be achieved with louvered high brightness fixtures. Louvered fixtures with high brightness lamps promote reflected glare. The louvers create a light build-up directly under the fixture and intensify annoying reflected glare from desks and reading materials. The light rays, directed down, bounce back into the students' eyes. Eliminate this glare by installing Hairpinline Cold Cathode fixtures. At the same time you will save up to \$10.78 per classroom per year in maintenance and power.



1LLUMINATING ENGINEERING CO 2347 E. NINE MILE ROAD, HAZEL PARK, MICHIGAN





he No. I way to care for **FLOORS**

and RUGS

Why limp along with costly mop-and-pail methods or floor machines of limited application? You can be dollars ahead every day by switching to America's most modern, most versatile floor machines . . . the American Floor-King and all-purpose American Vacuum in sizes to fit your requirements. Send today for colorful fast-reading booklet on our new line of vacuums . . . the one line that needs no alibi because every model does every job from floors to rugs to off-floor cleaning.



549 So. St. Clair St. Toledo 3. Ohio

performance proved maintenance machines . .

world-wide sales and service

SE-321



A truly **ADJUSTABLE**

AT LAST!

Typewriter Table with ALL the Features you've been looking for! ...



SILENT MOUNTED

ADJUSTABLE SELF-LOCKING

WRITE FOR

DETAILS TO

DEPT. S-E

MODERN DESIGN

ECONOMICAL ALL STEEL CONSTRUCTION







Drop-Leaf Table

PINELLAS INT. AIRPORT ST. PETERSBURG, FLORIDA

SE-322 Right At Your Finger Tips A Plastic Binding Kit For Scrapbooks and Albums (Illustration of two hole kit) **\$1190** 3 HOLE KIT -\$16.90 4 HOLE KIT - 29.90 Exciting new do-it-yourself binding kit, simple enough for

a child to operate. Just insert the pages and punch, then pick a colorful binding tube from the spin dial base, snap into place and in seconds you have a real professionallooking colorful volume.

write for free booklet to department SE-11

TAUBER PLASTICS, INC.

200 Hudson St., N. Y. 13, N. Y.

SE-440

Vacuum Cleaner Adapter For Extra Large Volume

The Clarke Xtra Tank Adapter fits any 30 gallon or smaller ash can or drum and speeds up work. For use where an extra large volume of material must be picked up, it may be used in combination with any make portable heavy duty vacuum cleaner having a 1½" diameter hose.

The unit is especially suitable for large volume metal recovery, furnace and boiler cleaning, etc.



CLARKE SANDING MACHINE Co., 30 E. Clay Ave., Dept. PB, Muskegon, Mich.

Janitor Cart

SE-441

Folds for Storage



A rugged steel frame on two easy rolling wheels gives strength and rigidity to this janitor cart. The frame is electrically arc-welded throughout, with self-locking fasteners to keep hinged joints in proper adjustment. The cart frame holds a 5-bushel capacity canvas bag for the collection of waste paper, etc.

The cart measures 39" high x 20" wide x 20" long, and tilts back to maneuver easily through long passageways and narrow spaces.

THE PAUL O. YOUNG Co., Line Lexington, Pa.

O Ring Assortment SE-442 Handy for Maintenance



The Sexauer O Ring Handy Andy is an assortment consisting of 15 different sizes covering a wide variety of uses. An index on the inside of the kit cover identifies each size of O ring, indicates the make of fixture on which it is used, and describes the purpose for which it is designed. It insures easy selection of the correct size of O ring required.

J. A. SEXAUER MFG. Co., INC., 2503-05 Third Ave., New York 51, N. Y.



Michaels exhibit cases, made of extruded bronze and aluminum, are recognized everywhere for their high quality, distinctive appearance, maximum visibility, flexibility of interior arrangement, and other advantages. Innerlocking frames, exclusive with Michaels, mitered intersections, and other structural features, assure protection against ingress of dust and vermin, as well as security against handling and theft. Many types are available: table, aisle, corner, suspended and recessed cases in standard sizes or custom built.

Michaels cases are used extensively by educational institutions, museums, art galleries and libraries. Write for catalog containing complete information.

THE MICHAELS ART BRONZE CO., INC.

P. O. BOX 668-SE, COVINGTON, KENTUCKY

Since 1870 the name Michaels has been a symbol of exceptionally high quality





7 MOHAWK STREET . FULTONVILLE, NEW YORK CANADIAN FACTURY: PARIS, ONTARIO, CANADA The ONE complete line of floor cleaning tools



METAL PRODUCTS . GREEN BAY . WISCONSIN

SE-443

General Utility Trucks New Line Developed

Nutting Truck and Caster Co. announces a complete new line of heavy duty general utility trucks. The trucks are designed to handle a greater variety of materials such as cartons, crates, boxes, cases, bags, bales, kegs, and barrels.



Available with 6 x 2" (300 lbs. capacity) or 10 x 23/4" (550 lb. capacity) roller bearing, semi-pneumatic rubber tired wheels for in or

outdoor use. Weights from 31 to 39

NUTTING TRUCK AND CASTER Co., Faribault, Minn.

SE-444

Litter Pick-Up Stick With Stainless Steel Point



Picup Stix saves time in litter removal. A replaceable stainless steel point easily pierces tin cans and removes all types of litter from almost any surface including asphalt and macadam. It has an aluminum shaft and colorful grip, blending strength with lightness and good looks.

TOMKEN MFG. Co., P. O. Box 3, Gedney Station, White Plains, N. Y.

SE-445

Trash Burner Cover Eliminates Spark Hazard



Safe-T-Lid trash burner cover is designed to fit on the "oil drum" trash burner. A 14" section of this metal cover is perforated with 1,400 3/16" holes to arrest sparks and fly

B AND N PRODUCTS Co., P. O. Box 989, Kalamazoo, Mich.

light a gymnasium

Senior High School Chambersburg, Pa.

SE-327



Architect: Lawrie & Green Elec. Engr.: Gatter & Diehl Elec. Contr.: Keystone Engr. Co.

teamwork

Important to efficient gymnasium lighting is the teamwork between the architects, engineers, school officials and contractors.

Evaluation of the various functions of the gymnasium area, together with analysis of the levels and quality of illumination required, should precede definite specifications. It's at this point a Pittsburgh representative can suggest the Pittsburgh Permaflector Fluorescent and Incandescent Equipment that will fill efficiently, and within your budget, all gym lighting needs.

Planning a Gymnasium?

Write for the idea packed bulletin "How to Light a Gymnasium." It highlights the problems you'll encounter and points the way to their solutions.



PITTSBURGH REFLECTOR COMPANY

415 OLIVER BUILDING, PITTSBURGH 22, PA.

FLUORESCENT



INCANDESCENT

Lighting

REPRESENTATIVES IN PRINCIPAL CITIES . WHOLESALERS EVERYWHERE

In Canada: Pittsburgh Reflector of Canada, Ltd., 105 Tycos Drive, Toronto

Lasting Interest Value

makes JUDY materials the most successful teaching aids you can use!

Judy Puzzle Inlays appeal to all children in a wide age range and interest level.

Judy Story Sets for creative expression in story tellingin language arts and social studies.

Judy Alphosets are simple and easy to use. Effective for spelling, phonics, vocabulary building, arithmetic, alphabetizing, signs and displays, photographic titles.

SEND TO DEPT. SE FOR FREE CATALOG

of

all classroom tested materials

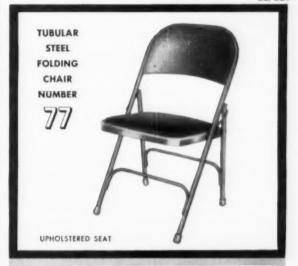
MODEL 10





THE JUDY COMPAN

310 N. Second St., Minneapolis 1, Minn.



QUALITY AND DURABILITY

Yes! The best seating chair buy available anywhere, is HAMPDEN. Built for a lifetime of service, comfortable, handsomely designed. Ganging fixtures easily adaptable.

Compare this chair with any other in the country for quality and price. You'll agree, HAMPDEN for quality and price. You costs less for greater value.



Write Department 4K for illustrated brochure ac / of complete line

SPECIALITY PRODUCTS. INC.

SE-330

PRECISION HOLLOW-CHISEL MORTISER ... within any school budget!

NEW MAGIC-ACTION SLIDING-HEAD ENDS STICKING, JUMPING, POUNDING

> Powermatic engineers designed and built the Model 10 for highproduction work, but it's fast becoming the most popular hollow-chisel mortiser in modern school shops! Compound table

lets operator mortise at any angle, while the table rack allows successive straightline cuts without unclamping. Direct-drive motor assures smooth operation free of noise and vibration. Precision engineered for safety, speed and simplicity!

COMPLETE WITH 1 H.P. MOTOR'

Powermatic makes these Safety-checked Woodworking machines

- · PLANERS
- . HOLLOW-CHISEL & CHAIN MORTISERS
- . JOINTERS
- BAND SAWS
- ARBOR SAWS
- TENONERS

DEALERS IN PRINCIPAL CITIES

MAIL COUPON FOR . COMPLETE DETAILS AND MECHANICAL SPECIFICATIONS #S (HYDRAULIC) AND #15 (CHAIN SAW) MORTISER

ALSO AVAILABLE

Send full details on the Model 10 Hollow-Chisel Mortiser

Name Address

MAIL TODAY TO DEPT. 8



McMinnville . Tennessee

SAFETY

CHECKED FOR SCHOOL USE

OTHER NEW PRODUCTS

12" Lathe

SE-446

For Wood, Metal Turning

Delta's new 12" wood lathe is adaptable to metal spinning, polishing, sanding, fluting and reeding as well as all inboard and outboard turning operations.

The lathe's variable speed drive offers an extremely low speed of 340 rpm for heavy or rough turning and an infinite choice of speeds up to



3200 rpm; a safe high speed for sanding, polishing, metal spinning and similar operations.

The new machine offers a capacity of 38" between centers, 12" swing over the bed, and 16 1/2" swing over the gap with stock up to 3 1/2" thick. Its massive construction throughout assures continuing accuracy and relatively maintenancefree operation for many years of heavy-duty operation.

ROCKWELL MFG. Co., DELTA Power Tool Div., 400 N. Lexington Ave., Pittsburgh 8, Pa.

Christmas Tree

SE-447

Reduces Fire Hazards

Gro-Green Christmas tree preservative is formulated to prevent falling needles, eliminate brown spots, reduce fire hazards, and give trees a green, fresh-cut appearance through

of the tree.

Preservative

the Christmas season.

The formula is packaged in a convenient, one-ounce bottle that contains sufficient preservative to feed an average 8 ft. tree for the entire Christmas season. It's easy to use by merely mixing two capsfull of preservative to a pint of water and placing the base of the tree in the solution. Nutrients contained in the formula are taken up into the fibers

H. D. CAMPBELL Co., Rochelle, Ill.

Heating Equipment In New Space-Saver Models

Three new models have been added to the Armstrong Furnace Co. line. They are oil-fired, suspended "space-saver" heaters in the 8801-L8 series, rated at 225-, 275-, and 350 thousand B.T.U. per hour.

The units are exceptionally compact and can be suspended in an otherwise unused area. They measure 29" in height, and 651/2" in length.

Simplicity of installation is the keynote of these new models. Just install the burner, suspend the unit, connect the power and fuel lines and the unit is instantly ready to produce

ARMSTRONG FURNACE Co., 851 W. Third Ave., Columbus 8, Ohio.



Once confined to sinks and sink tops alone, slate has been extended in use to practically all laboratory furniture. Its resistance to chemicals . , , its non-absorptive qualities and tensile strength make slate equal ... or superior ... to all other products of similar usage. For durable laboratory installation . . . be sure . . . specify slate. Inquiries welcomed on specific properties of slate.





Before You Decide Ask Mayline for Prices.

C-7702 ART TABLE

Before you buy, write Mayline for literature, prices, and delivery on products you may require for your drafting room or art classes.

Our fine furniture is made from kiln dried hardwoods; it is well constructed, and it is attractively finished. You will be pleased, in particular, with our low prices.

Symbol of



Superiority



609 No. Commerce St. Sheboygan, Wisconsin



C-7703B DRAFTING TABLE

MAYLINI

SE-333



VACUUM CLEANER BUY



. . . IS SPENCER'S POWER-PACKED,
HEAVY-DUTY, EASY-TO-HANDLE, HANDSOME & VERSATILE

P-118 Here . . . for less than \$250 . . . is a well-engineered, dependable machine for tough day-in, day-out service. Gets up to six times MORE dirt, gets it FASTER and is EASIER to handle. Internal dirt-bag emptying. Dust-free dry-mop cleaning accessory. Wet or dry pick-up. Most complete selection of professional tools. Before you buy, get the facts and compare. Write Dept. \$\$5.

THE SPENCER TURBINE COMPANY . HARTFORD 6, CONNECTICUT

SPENCER

Spencer manufacturers a complete line of Commercial Portable Vacuum Cleaners.









SSPSGA

OTHER NEW PRODUCTS

Irrigation System SE-449 For Large Lawn Areas

Complete, systematic watering of large lawn areas such as a football field is a simple matter with the packaged Shur-Rane irrigation system. This unit features use of large-capacity, rot-and-corrosion-proof aluminum piping for both sprinkler and feeder lines.



The sketch at the left shows how specially designed locking clamp permits making connections between lightweight 10-ft. lengths of pipe by one man without stooping or bend-

SE-335

ing. Inset at the right shows how a complete football field can be thoroughly covered with only 3 moves of the sprinkler lines.

JOHN BEAN DIV., FOOD MACHINERY AND CHEMICAL CORP., Lansing 4, Mich.

Bus Attendance Recorder Automatically Registers Pupils

The Attendicorder is a device for keeping the attendance of children on school buses. This unit perforates a form, thus automatically registering the pupils who have boarded the bus. Two models are available: one to take care of a bus load of 30; the other a bus load of 100 pupils.

This device will help the driver to keep track of the children who went to school in the morning for the return trip, etc.

ROBERT E. TOMPKINS, INC., 751 Clay Rd., Rochester 23, N. Y.

Spindle Shaper SE-451



The design of the supporting column and drive motor mount on the new Boice-Crane 3100 Series Spindle Shapers will be of particular interest to those who must shift machines around. The power tool is very portable and can be used anywhere without anchoring.

The new drive system makes motor installation possible without tools or bolts, through the use of lower cost lug-type motors up to 2 h.p., an increase of 33 1/3%.

Boice-Crane Co., 976 W. Central Ave., Toledo 6, Ohio.

HELP KEEP OUR SCHOOL CLEAN

HELP KEEP OUR CAMPUS CLEAN

an Invitation to Automatic
Cleanliness with

BENNETT

WASTE RECEPTACLES

Eye catching stenciled messages on 1, 2, 3 or 4 sides of Bennett Waste Receptacles invite students to keep the Schools and Campuses clean. Students automatically de-

posit waste and refuse in these attractive, easy to use, conveniently placed waste receptacles. Bennett Waste Receptacles have rounded corners... welded joints... heavy guage steel... special outdoor Green, Gray or White baked on enamel finish... stainless steel fect. Quality and every consideration for hard use are self-evident throughout Bennett Self-Closing Waste Receptacles.



QUICK, EASY, ECONOMICAL ANCHORING METHOD



Showing one plate, lag bolt and expansion shield from the economical kit containing 4 of each.

FILL IN AND MAIL COUPON TODAY

THE BENNETT MANUFACTURING CO., ALDEN, N. Y.	SE-11-56
Kindly send to my personal attention a FREE copy of the fully	illustrated
Bennett Waste Receptacle Catalog listing standard stencils for	messages.
Name Title	
Name	

Montoe Folding banquet tables



NOW, Monroe Folding Banquet Tables, at no extra cost are offered with completely finished tops, highly resistant to most serving hazards. May be USED WITHOUT TABLE CLOTHS, if desired. Also available in Formica and Ornacel special color and pattern types. Write for catalog with direct factory prices and discounts to religious and educational institutions, clubs, lodges, etc.



MONROE TRUCKS For Folding Tables and Chairs

Transport and store your folding tables and chairs the easy, modern way on MONROE Trucks. Construction of Transport-Storage Trucks permits maneuverability in limited space. See Catalog.



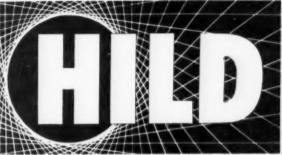
THE Monroe Company

66 CHURCH ST.

COLFAX, IOWA

Every Modern School Needs...





COST PROBLEMS?

Hild equipment can solve almost all your maintenance problems with a minimum of labor, time, and cost! Every Hild machine is precision made to give you year after year of trouble-free service . . . many of our original models are still in use today, after 29 years of dependable service!

Shower-feed Floor Machine

This single Hild machine can scrub, wax, polish, buff, sand, grind and steel wool your floors. Powerful GE motor, adjustable handle, safety switch, and non-marking bumper and wheels. Available in every size and style for every job!



Keep Your Floors Slip-Safe

Hild Shower-feed scrubbing and vacuum drying system . . . cleans and drys in minutes! Vacuum lifts dirt and moisture from cracks and low spots . . removes slick film that causes accidents.



Heavy Duty Vacuum

Held fool-proof vacuum machines for all your floor to ceiling vacuum jobs. Powerful suction action picks up liquid or dry dirt without adjustment or filter change. Gives you utmost convenience, efficiency and rugged durability. Available in 10 to 55 gallon sizes.



SCRUBBERS- MODEL "K"
POLISHERS Low Cost
Nine Models Floor Machine



MODEL 455 55 Gal. Transferable Vacuum



\$E.11.56

HILDF

740 W. Washington Blvd. • Chicago 6, III.

FLOOR MACHINE CO. INC.

gentlement send mid more migraid

- Floor Machines
- Portable Vacuums
- All Hild Equipment

Address____

City______5tote_

OTHER NEW PRODUCTS

Intercom Unit

SE-452

Is Unusually Versatile

Motiograph, Inc., has developed a new communication and sound reproducing equipment which combines music and program source and distribution, voice-paging and two-way communication. A variety of models is available embodying different combinations of equipment for providing any or all of these various services



to any desired number of locations. Broadcast of AM and FM radio and record music; program distribution of lectures and speeches for educational purposes in schools and colleges; private two-way communication between operator and any station even during program distribution to all other stations; the transmitting of instructions by voice-paging for prompt attention of personnel; and the broadcast of emergency announcements to all stations simultaneously are some of the functions of the equipment.

MOTIOGRAPH, INC., 4432 W. Lake St., Chicago 24, Ill.

SF-33

SHELDON Precision LATHES

Better SCHOOL LATHES

-for students

-for instructors





"Zero Precision" tapered roller bearings support the spindle, retain their accuracy, and eliminate costly



Modern Apron with new and Improved friction disc type clutch for power feeds has a built-in agent interlock



Quick Change gear box has wide number of pitches and feeds available, eliminates changes in and gearing, permits rapid selection of feeds while letter is recognized.

OTHER QUALITY
PEATURES INCLUDE:
CARRIAGE HEADSTOCK AND TAILSTOCK AND TAILSTOCK HANDSCRAFED TO BED.
LARGE MICROMETER
DIALS, TAFFERED
TAKE-UP GIBS.
DOUBLE NEOPRENE
V-BELTS TO
SPINDLE.
HEAVY, RUGGED BED,

SHELDON PRECISION LATHES are standard in leading vocational schools

Pare standard in leading vocational schools and industrial arts shops. They are of modern industrial design — in weight, power, capacity, speed range, extreme accuracy, safety, ruggedness and long life. Hence they permit practical shop courses and worthwhile projects.

They accustom students to "big lathe" power and controls; to big lathe "feel" and performance, building student confidence satisfaction and skill. Still they are safer, with new safety switches, aluminum shear pins, safety color code, and all gearing, belts and drive pulleys completely enclosed.

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In Extremely High Capacity



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Roof Ventilator SE-454 Has Aluminum Damper Blades

A new hi-velocity roof ventilator features automatic damper blades. These pivot on maintenance-free bearings across the diameter of the fan to open wide with minimum fan pressure. When operating, the exhaust velocity keeps out rain, snow, and exhaust re-entry. The ventilator is completely weather-tight in the closed position.

Specially engineered airfoil shaped fan blades provides maximum thrust at lowest RPM's.

CHICAGO BLOWER CORP., 9863 Pacific Ave., Franklin Park, Ill.

SCHOOL EQUIPMENT INDEX-NOVEMBER, 1956

This index covers products and services referred to in both advertisements and editorial reviews in this issue. To find a particular advertisement or editorial listing, consult the key (SE number) which precedes the listing, and which will also be found above the advertisement or listing in the body of the magazine.

If further information concerning any of these products is desired, it will be sent without charge or obligation. Simply circle the identifying numbers on the back of the business reply card below and mail it to us.

SE	
201	Fiberesin Solid Plastic Desk Tops
202	Benjamin Capri Lighting Fixture
203	Nesbitt Wind-O-Line Radiation
204	Maas & Waldstein Plextone Multicolored
204	Textured Paint
205	Schieber Folding Tables & Benches
206	Westmoreland School Furniture
207	Clarke Floor Machines
208	Remington 10-key Figuring Machines
209	Wyandotte Universal Liquid Cleaner
210	Standard Electric Program Controllers
211	Duracote Dura-Decor Fabrics
212	Bestile Scribo Chalkboard
213	Verd-A-Ray Fluorescent Lamps
214	Fort Howard Paper Towels
215	Universal Roll-A-Way Bleachers
216	Heinz Soups
217	IBM Electric Typewriters
218	Wayne Gymnasium Planners
219	Sanymetal Toilet Compartments
220	Victor Projectors
221	Medart Telescopic Gym Seats
222	Dick Electric-Drive Mimeograph Machine
223	American City Bureau Fund-Raising Cam-
	paigns
224	Horn Brunswick Folding Basketball Back-
	stops
225	Monsanto Vinyl Flooring & Wall Cover-
223	
	ing
226	Manley Popcorn & Soft Drink Machine
227	Trane Ventilating Equipment
228	Haldeman Erickson Portable Folding
	Table
229	S. C. Johnson Emerel Cleaner
230	Peabady School Seating
231	Executone School Communication Sys-
	tems
232	American Bitumuls Walk-Top Playground
	Surfacing
233	SVE School Master Projectors
234	
234	
	System
235	Fair-Play Scoreboards
236	Halsey W. Taylor Water Fountains
237	Simoniz Floor Maintenance Commercial
	Products
238	Arco Paints
239	Singer Combination Sewing Machine
	Table
240	Herman Nelson Unit Ventilator Products
241	Pratt & Lambert Lyt-All Flowing Flat
	Paint
242	Ampro 16mm Sound Motion Picture
444	
	Projectors
243	Snyder Grandstands & Bleachers
244	Fleetwood Flexible Furniture
245	Mississippi Diffused Glass
246	Sexaver Faucet Washers
247	Paul O. Young Piano Carriers
	Hartistan Sant O. San Com Stone State
248	Huntington Seal-O-San Gym Floor Finish
249	Rowles Modernaire Classroom Desk
250	Radiant Projector Screens
251	PC Glass Blocks
252	American Seating Bodiform Auditorium
232	
	Chairs

Roiscreen Pella Wood Folding Doors

Federal Dial Intercommunication Leonard Peterson Laboratory Furniture

SE		SE	
256	Johns-Manville Terraflex Vinyl Asbestos	290	Geneva Kitchen Cabinets
	Tile	291	Sico Cafeteria Seating
257	Honeywell School Temperature Controls	292	Finnell Floor Maintenance Machines
258	Sico Table & Bench Units	293	Corning Double-Tough Dinnerware
258A	General Binding Plastic & Loose Leaf	294	Multi-Clean Gym Finish
	Binding Equipment	295	Nelson Wardrobes
259	Brever Tornado Floor Machine	296	Kewaunee Flexihood
260	Klopp Coin Counter	297	Powers Temperature Control
261	Hussey Roll-Out Gym Seats	299	Colorado Realock Fence
262	Strong Spotlights	300	Shwayder Samsonite Chaire
263	Beseler Vu-Lyte II Opaque Projector	301	Dodge School Bus
264	National Multi-Purpose Cabinets	302	Sunroc Deck-Type Drinking Fountain
265	International Auditorium Seats	303	Mitchell Folding Tables & Stands
266	General Floor Machines	304	Nissen Trampolines
267	Page Chain Link Fence	305	Sjostrom Library Furniture
268	Playtime Galvanized Bleachers	306	Columbia Educational Records
269	Eastman Kodascope Pageant Sound Pro- jector	307	Tremco 1956 School Maintenance Pro- gram Edition
270	American Optical MC Custom Projector	308	Cretors Popcorn Machines
271	Royal Electric Typewriters	309	Heywood-Wakefield Tubular Steel Fur-
272	Chicago Sani-Dri Electric Hand & Hair		niture
	Dryers	310	National Combination Locks
273	American Crayon Gyga-Color Chalk	311	Duke Thurmaduke Waterless Food
274	American Crusader Chair Desk		Warmer
275	Anchor Chain Link Fence	312	Hunt Boston Pencil Sharpeners
276	Hillyard Floor Maintenance Equipment	313	Safe-Lad Maintenance Platform
277	Sheldon Science Table	314	Plastic Luxout Draperies
278	J. W. Wells Diamond Hard Northern	315	National Super Floor Machines
	Maple & Oak Flooring	316	Nutting Chair Trucks
279	Armstrong Acoustical Ceiling Materials	317	Cram Globes, Maps, Charts & Atlases
280	Dudley Master-Keyed Combination Pad-	318	National Atlas Electric Food Carts
	locks	319	
281	Geerpres Mop Wringers	317	Lighting Fixtures
282	Bell & Howell Filmosound	320	
283	Thompson Servisafe Pole Mounted Lumi-		American Floor Machines
	naire	321	Semco Adjustable Typewriter Table
284	Monroe Educator Calculating Machine	322	Tauber Plastic Binding Kit
285	General Motors Chevrolet School Bus	323	Michaels Exhibit Cases
786	Mason Mint Fund Raising Plan	324	American Playground Equipment
207	Dictaphone Time-Master Dictating Ma-	325	White Mop Utility Truck
	chine	326	Krueger Folding Chairs
288	Viewlex Projectors	327	Pittsburgh Reflector Gymnasium Lighting
289	Norris Milk Dispensers	328	Judy Teaching Aids Materials

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			SE		SE	
	SE	u	(36)	NEW PRODUCT REVIEWS	437	Curtis Louver-Diffuser
	329	Hampden Tubular Steel Folding Chair Powermatic Hollow-Chisel Mortiser			438	American Radiator Drinking Fountain
	331	Natural Slate for Laboratory Tops		FOOD SERVICE	439	Burgess Emergency Light
	332	Mayline Drafting & Art Tables	401	Meterflo Milk Dispenser		
	333	Jari Snow Thrower Spencer Commercial Vacuum Cleaner	405	Victory Refrigerator Foldcraft Folding Pedestal Table		
	335	Bennett Waste Receptacles	408	Universal Dish Caddy		MAINTENANCE
	336	Monroe Folding Banquet Tables			405	Modern Power Sweepers
;	337	Newark Electronics Catalog No. 65			440	Clarke Vacuum Cleaner Adapter
	338	Hild Floor Machines			441	Paul O. Young Janitor Cart Sexaver O Ring Assortment
	339	Sheldon Precision Lathes Irwin Uni-Desk		TEACHING MATERIALS	443	Nutting General Utility Trucks
	341	Daintee Pana-Math Counting Frame			444	Tomken Litter Pick-Up Stick
	342	Empire Waterlox Gym Finish	402	Croft UN Project Kit Ozalid Visual Aids	445	8 And N Trash Burner Cover
	343	Berlin Ez-A-Way Bleachers	410	American Sterescopic Microscopes		
	344	Equipto Modern-Flow Benches	411	Audio-Master Hi-Fi Record Players		
	345 346	Corbin Letter Boxes Rauland-Borg Central Control Ali-Facility	412	Armour Manual Arts Products American New Prang Color		OTHER NEW PRODUCTS
	340	School Sound	414	Rainbow Modeling Compound	446	Rockwell 12" Lathe
	347	Howe Folding Tables	415	Wilcox-Gay New Recorder	447	H. D. Campbell Christmas Tree
	348	American Lincoln Auto Scrubber	416	Fisher Laboratory Flask Support Binney & Smith Paint Applicator	448	Armstrong Heating Equipment John Bean Irrigation System
	349	Loxit Chalkboard System	418	Richard Best Lead Holder	450	Tompkins Bus Attendance Recorder
	350	Pyramid Symphonette Record Player Master Combination Padlacks			451	Boice-Crane Spindle Shaper
	351 352	Moore Key Control Telkee System			452 453	Motiograph Intercom Unit
	353	Pittsburgh Stage Equipment			454	Cyclotherm Package Boiler Chicago Roof Ventilator
	354	Straubel Towels & Tissue		BUILDING PRODUCTS		
	355	Bradley Counter Type Drinking Fountains	403	Azrock Vinylized Tile		
	356	Allied Electronics Knight-Kits	403	AZFOCK VINYINZED THE		AUDIO-VISUAL AIDS
	357	Neubauer Gym Basket Rack American Sweep and Dust Mops				ASSISTATIONE AISS
	359	Rilco Laminated Products			501	SVE Hero Legends
	360	Griggs Steel Tubing Furniture		CLASSROOM EQUIPMENT	502 503	United World Film on NATO Peoples Aetna Classroom Driver Training Device
	361	Lake Shore Aluminum Plaques				Film
	362	Duplex Straw Dispenser	404	Brunswick-Balke Tablet Arm Chair	504	Walt Disney Elk Film
	363	Dependable Posture Chair & Workshop Stool	420	Armstrong Acoustical Formboard American Rubber Tile Flooring	505 506	Du Pont Radiology Film Stanley Bowmar Filmstrip Catalog
	364	Don Equipment, Furnishings & Supplies	421	General Tire Vinyl Wall Covering	507	SVE Holiday Filmstrips
	365	Stacor Flex-Master Drawing Table	422 423	Webster Intercom Control Center Hallowell Laboratory Benches	508	Association 16mm Film Catalog
	366	Advance Floor Machines	424	Clarin Music Room Chair	509 510	Canon Camera Making in Japan Film Brett-Guard Saw Guarding Film
	367	Schacht Doors & Frames	425	Edwards Fire Alarm System	511	Institute Home Economics Film
	368	M. D. Brown Basketball Scoreboards	426	Desks of America Posture Chair		
	369	Fairhurst Disappearing Door School Wardrobes	427 428	Adjustable Caster and Glide Industrial Audiometric Testing Rooms		
	370	Our Schools Monthly Leaflet	429	Century Open Reflector Downlight		MANUFACTURERS' CATALOGS
	371	Coronet Films	430	Universal-Rundle Blowout Urinal Luxem Folding Table		MANUFACTURERS CATALOGS
		Tolerton Steel Splined Top Benches	432	Rittling Baseboard Radiation	512	Lowerator Refrigerated Milk Dispense
	373	Bassick Diamond-Arrow Casters	433	Michael Lith Paper Cutter	513	Paragon Time Controls Hamilton Arts and Crafts Equipment
	375	Cincinnati Folding Gates Draper Portable Pakfolds	435	Rockbar Loudspeakers Temprite Water Cooler	314	Furniture
		and a second	430	Temprile Water Cooler	515	Seal Dry Mounting System
						Challenge Proof Press Automatic Heat Controls
					518	Corry-Jamestown Steel Office Furnitus
					519	Plan Hold Vertical Filing Systems
******	COLL	COL EVECUTIVE OF F			520 521	Automatic Weather Controls Progressive Food Service Equipment
		OOL EXECUTIVE, 470 Fourth Ave., Ne			522	Armstrong Acoustical Materials
		the manufacturers, indicated by the numbers I	have	circled, to send further literature and	523	Haloid Visible Photo Panels, Xerograph
		provided there is no charge or obligation.			524	LaPine Laboratory Equipment
		204 205 206 207 208 209 210 211 212 213 2				
		228 229 230 231 232 233 234 235 236 237 2				
		262 263 254 256 256 267 268 258A 259 260 26				NEW TEXTBOOKS
		276 276 277 278 279 280 281 282 283 284 2			525	Ginn & Co. Spanish Text
321 329		300 301 302 303 304 305 306 307 308 309 3 324 325 326 327 328 329 330 331 332 333 3			526	Reinhold Chemical Dictionary
345 346		346 349 350 351 352 353 354 355 356 357 3			527	Lippincott Physics Text
		372 373 374 875 401 402 403 404 405 406 4			528	Warp Review Workbooks
		421 422 423 424 425 426 427 428 429 430 4				
		446 447 448 449 450 451 452 453 464 501 5				
		516 517 518 519 520 521 522 523 524 525 5				
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ONE-PIECE G-E TEXTOLITE DESK TOP, attractive and exceedingly durable.

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The definite superiority of this new IRWIN UNI-DESK exemplifies the comprehensive design and sound construction characteristic of the entire IRWIN line which includes seating for every school and auditorium requirement. Why not write for our catalog, NOW?

RWIN SEATING Company



SE-342

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Grade 1 to 4 Requirement

for effective visual math teaching

Pana-math is a versatile classroom counting frame for incidental learning of the important concepts of arithmetic. The ancient abacus is now adapted as a modern aid to visualize numbers, groups and relationships by actual arrangement of beads. Sturdily constructed of 13/16" hardwood the frame has 10 removable push-spring rods each with 10 colorful beads. Specify Pana-math for all new or replacement counting frame equipment. (Pat. No.

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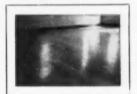
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AUDIO-VISUAL AIDS

SE-501 Hero Legends

Hero Legends of Many Lands is the title of a new series of filmstrips directed to the intermediate, junior and senior high school level. The series content includes the following: William Tell; King Arthur And The Magic Sword; Aladdin And The Wonderful Lamp; Robin Hood And Allan-A-Dale; Ulysses And Circe: and Gulliver's Travels To Lilliput. A special message to the students is included in each filmstrip to encourage them to read these and other legends and stories. Series

price is \$34.50; individual price is \$6.00. Society For Visual Education, Inc., 1345 Diversey Parkway, Chicago 14, Ill.

SE-502 Films on NATO Peoples

A new group of fourteen sound motion pictures of interest and special value in the social studies is a current offering from United World Films, distributors of U. S. Government films. Entitled The Nato Series, these two-reel films each deals with a member nation of the North Atlantic Treaty Organization and develops the current pattern of each nation's economic, political, and social life. The new films are effectively geared to today's

social studies programs on the upper elementary, high school, and college levels. United World Films, Inc., 1445 Park Ave., New York 29, N. Y.

SE-503 Classroom Driver Training Device

new documentary film describing a unique classroom driver training device now being used in a number of high schools throughout the country has been released by the public education department of the Aetna Casualty and Surety Co. Entitled Teach Them Now, the 13-minute movie explains how the new device, called the Aetna Drivotrainer, meets the dual problems of high costs and teacher shortages which have retarded the spread of driver education courses in the nation's high schools. In the film, actual classroom scenes show students taking driving lessons on the Drivotrainer in high schools at New York City, Oklahoma City, Oak Park, Ill., and at Iowa State Teachers College. In the trainer, students use small model cars in which they learn to meet road and traffic conditions pictured on a huge movie screen at the front of the classroom. Teach Them Now also reports the reactions of instructors, teenage driving students, and parents to the novel behind-the-wheel teaching technique, and summarizes the results of educational research studies which have confirmed the effectiveness of the Drivotrainer. AETNA LIFE AFFILIATED COMPANIES, Hartford, Conn.

SE-504 Elk Film

The story of the elk, native to the Northwestern United States, The Olympic Elk is the fourth in Walt Disney's true-life adventure nature series to be made available to schools under long-term lease through the 16mm. DIVISION OF WALT DISNEY PRODUCTIONS, BURBANK, CALIF.

SE-505 Radiology Film

First A Physician, a dramatic motion picture portraying the role of the radiologist on the medical team, will soon be available. The film authentically depicts facets of diagnostic and therapeutic radiology in the finding and treatment of various human ailments and diseases, including cancer. Richard Kendrick, stage and television star, plays the leading role of Dr. William Phillips. In the non-technical 27minute color film are, in addition to the radiologist, these members of the medical team: family physician, surgeon, interne, nurse, psychiatrist, x-ray technician, and anesthesiologist. E. I. Du Pont De Ne-MOURS & Co., Photo Products Dept., Wilmington, Del.

SE-506 Filmstrip Catalog

Filmstrips and the Tools with which to Use Them. This new filmstrip catalog, No. 7, lists filmstrips on all subjects and for all grade levels. Included are more than 3,000 filmstrip titles. Audio-visual supplies such as projectors, screens, stands, storage cabinets are featured and described along with prices and model numbers. Stanley Bowmar Co., Inc., 12 Cleveland St., Valhalla, N. Y.



Scissor-crossed bracing in EZ-A-WAY Bleachers prevents lateral drift and assures that the movable tiers will always be parallel with respect to each other and the fixed rear weldment. Note and compare material content of EZ-A-WAY Bleachers with others . . . more space could be provided if less substantial material were used. And, EZ-A-WAY Bleachers are not only safe and durable, but designed to provide maximum flexibility.

an exclusive feature that has

not been duplicated by others.

but designed to provide maximum flexibility.

True floating action — developed by Berlin Chapman Company and never successfully copied — is one of EZ-A-WAY Bleacher's most outstanding features. A slide arm arrangement with close tolerance assures ease in opening and closing the bleachers... no springs... no rods or connecting angles are used in

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Now you can custom design your own layout with Equipto modern-flow Benches. They can be easily arranged into one continuous streamlined assembly.

Many types and styles of drawers, drawer pedestals, cabinet pedestals, sliding doors, aerial shelves and accessories are available for Equipto Benches.

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Steel Shelving . . . Parts Bins . . . Drawer Units . . . Lockers . . . Carts . . . Work Benches

SE-345



You get an extra-convenience keying feature with CORBIN Letter Boxes that's a "natural" for schools and colleges. It permits a student to unlock dormitory door, room door, and letter box with the same key. It's an "optional" you'll want for highest efficiency in your mail system.

CORBIN Letter Boxes give you solid security too — the same sturdy construction that qualifies them for post office use. The only difference is appearance... richer, more distinctive designs that blend with any modern school interior. For modern efficiency and appearance, specify CORBIN Letter Boxes. They're available with either key or combination type locks; in complete, assembled sections, ready for service. Write for Catalog WP 25. Cerbin Weod Products Division, Dept. SJ, The American Hardware Corporation, Hornell, N. Y.





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NOW, you can have the most complete program, distribution and operational facilities ever designed in a School Sound System. The RAULAND S260 Console, with facilities for up to 160 classrooms, simplifies administrative control, provides the most versatile distribution of microphone, radio, phonograph and recorder programs to enhance instruction, and offers simultaneous 2-way communication between any classroom and central control Console. Here, truly, is the ultimate in School Sound.

- FM-AM RADIOS: Two (2) supplied. Selects for distribution to any or all rooms, any radio program on the complete FM band or the entire AM standard Broadcast Band.
- PROGRAM PANILS: Two (2) supplied—selects any two of 6 microphones and mixes them as desired, or mixes one microphone with Radio, Roam-Return or any one of 4 programs—Transcription Phono, Record Changer, Tope Recorder or Remote Line.
- MASTER CONTROL PANELS Provides 2-way conversation with any room. Includes one-aperation Emergency Switch placing Console microphone instantly in contact with any or all room speakers. Also includes for 2 automatic Program Clock and Monitor Speaker controls.
- SWITCH PANELS Selects any or all rooms (available with up to 160 room capacity) for program distribution. Switches provide distribution for 2 programs, for intercommunication and for room-return.
- TRANSCRIPTION PLAYER! Plays records of all sizes and speeds, including 16" transcriptions. Record Changer and/or Tape Recorder may also be used with facilities to distribute all three programs.

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Send full details on RAULAND School Sound Systems. We haveclassrooms; auditorium seats......

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AUDIO-VISUAL AIDS

SE-507 Holiday Filmstrips

Free copies of a comprehensive booklet, listing S. V. E. Holiday filmstrips and 2 x 2 slides, released by the Society for Visual Education are now available. This booklet features many new releases for Thanksgiving and Christmas programs including: Indians for Thanksgiving, a series of four colorstrips, The Christmas Story, Christmas Around the World, Days of Wonder, and Hymns of the Nativity. Soccety for Visual Education, Inc., 1345 Diversey Parkway, Chicago 1, Ohio.

SE-508 16mm Film Catalog

Association Films has just published its 1956-57 edition of Selected Motion Pictures, a 56-page illustrated catalog of 16mm, free and rental films for schools, clubs, churches and other community organizations. These films cover a wide range of subjects, from air travel to vocational guidance. Many new free films are offered for the first time in the catalog. Copies of this catalog may be obtained free by writing Association Films, Inc., 347 Madison Ave., New York 17, N. Y.

SE-509 Camera Making in Japan

A new film entitled New Japan Makes

SE-347

A Camera, depicting every phase of one of Japan's fastest-growing export industries, is available for viewing without charge to schools, institutions, civic, and educational groups. The 20-minute film was taken in color at the Canon Camera Company factory in Tokyo, Japan. The traditional hand-detailed workmanship and painstaking skills inherent to the Japanese worker, from centuries of pottery-making and silk patterning, are dramatically portrayed in the precision craftsmanship required in camera-making. All the processes involved in the manufacture of a camera are shown, from the designing right through the finished product for export to the U. S. It points out the numerous rigid tests both camera and lens are subjected to, in order to assure pinpoint accuracy; the delicate, intricate steps in grinding and polishing optical glass for different type lenses. It contrasts the modern up-to-the-minute manufacturing plant and equipment against the unchanged, age-old Japanese culture and physical background. CANON CAMERA Co., Inc., 550 Fifth Ave., New York, N. Y.

SE-510 Saw Guarding

A New Approach To Saw Guarding. 16mm. sound film, running time 15 minutes. The demonstrator in the film shows how the Brett-Guard Saw, a multi-purpose production saw fixture, is designed to be a useful accessory to further extend the versatility and application of its safety features. It provides a safe and efficient, fully-adjustable method of making various heretofore impossible to guard types of cuts. With Brett-Guard in place on a circular saw, the instructor shows how the Brett-Guard safety guard protects operators so they can see and saw in such dangerous operations as mitering, cross cutting, compound mitering, ripping, and demonstrates numerous other safety features. Brett-Guard Co., Englewood, N. J.

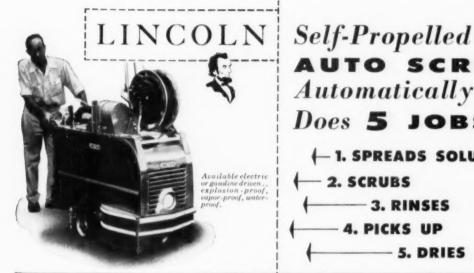
SE-511 Home Economics Film

The new color film What We Eat We Are which was made for home economics teachers in junior and senior high schools, is now available on a free-loan basis by the Home Economics Dept. of the United Fruit Co. The story of how bananas can be combined with other foods is vividly demonstrated in a manner to insure retention on the part of the pupils whose attention is sustained throughout the brief showing. A well-rounded, healthful, and appetizing diet is stressed. This fifteenminute film can be broken up into three separate five-minute sections, or shown as a whole. Titles include: Film No. (1) The Symphony of Salads features the banana in its nourishing and vitamin-supplying role with salads and other dishes: (2) Around The Clock With The Versatile Banana shows how this fruit adds new variety to meats and vegetables; (3) Desserts On Parade casts the banana in a glamorous finale to meals stressing elegant desserts, puddings, and surprise dishes. Requests and inquiries regarding this motion picture and the manual that accompanies it should be addressed to the INSTITUTE OF VISUAL TRAINING, 40 E. 49th St., New York 17, N. Y.



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MANUFACTURERS' CATALOGS

SE-512 Refrigerated Milk Dispenser

Lowerator Mobile Refrigerated Milk Dispenser is the title of an attractive 4-page folder, describing the new AMF Lowerator mobile refrigerated milk carton and bottle dispenser. Illustrations show how the AMF Lowerator refrigerated milk dispenser provides automatic dispensing at convenient counter level of 1/2-pint milk cartons or bottles; how it can be easily wheeled into counter openings or positioned in serving lines; how it accommodates milk cartons or bottles of any shape or size. Bending, stooping and reaching are eliminated, because the top rack is kept always at the same level, whether the unit is full, half-filled or nearly empty. The new dispenser's capacity, up to 384 ½-pint milk cartons or bottles, assures faster and smoother moving serving lines, minimum refilling and an adequate milk supply always ready for service. Refill racks are placed into the dispenser from the top. Data on the stainless steel construction, forced air cooling unit, temperature range, insulation, dimensions, capacity are given. LOWERATOR DIV., AMERICAN MACHINE & FOUNDRY Co., AMF Building, 261 Madison Ave., New York 16, N. Y.

SE-513 Time Controls

Time is Money—Know Your Time Controls is a new 2-page information booklet that is a complete reference to multi-purpose and industrial time controls. The new brochure can be used as an up-to-the-minute check list of leading Paragon time switches

and timers. It also provides the correct answers for countless electrically operated automatic on-off operations used in commercial, industrial and farm applications. A fold-out reference chart clearly defines what each control is, what it does, where it may be used and how to select and purchase it. Paragon Electric Co., Two Rivers, Wis.

SE-514 Arts and Crafts Equipment and Furniture

Catalog 219. This profusely illustrated catalog displays a new Hamilton product in the form of a complete line of Arts and Crafts Furniture and Equipment. Included are arts and crafts, storage, mechanical drawing and shop furniture. Service equipment is also featured along with tops and work surfaces. The back of the catalog devotes a section to floor plans and lists an Alphabetical Index. Materials, finishes and colors are included. Hamilton Meg. Co., Two Rivers, Wis.

SE-515 Dry Mounting System

Seal, Inc. announces the publication of their new free manual Mounting Made Easy by the Dry Mounting Process. This manual will be of interest to audio-visual, art and library departments. In addition to information on all their products, it gives detailed illustrated instructions on how to mount tearsheets, opaque strips, study prints, maps, charts, drawings, etc. SEAL, INC., Shelton, Conn.

SE-516 Proof Press

Booklet F-726. A new 12-page booklet covering their complete line of proof presses has been recently released by The Challenge Machinery Co. The booklet covers eleven different models ranging from the GP Proof Press for fine reproduction proofing, with power inking and other features, down to the inexpensive "E" and "H" models widely used by schools, newspaper plants and small printers for simple reading proofs. Featured in the new booklet is the complete description and specifications on the new GP Reproduction Proof Press. This unit features power inking, automatic trip-off of impression, automatic grippers, handy tip-out inking system and other new features. THE CHALLENGE MACHINERY Co., Grand Haven, Mich.

SE-517 Automatic Heat Controls

Modern Control of Building Temperatures from Outdoors is the title of a new fourpage illustrated bulletin issued by Automatic Devices Co. The catalog describes in detail, and with diagrams, the manufacturer's complete line of outdoor-type automatic heat controls. The three classes of weather controls available are: (1) Time Switches, set automatically by the outdoor weather; (2) Weather-Man controls, in which outdoor temperatures automatically regulate the hours of building heat generation and the rate of heat flow; (3) Indoor-Outdoor controls, which alter the heating system's temperature of water or air as the outdoor temperature changes. AUTOMATIC DEVICES Co., INC., 714 Hillgrove Ave., Western Springs, IlL



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MANUFACTURERS' CATALOGS

SE-518 Steel Office Furniture

Catalog No. 12. Profusely illustrated with diagrams and photographs both in color and black and white, this catalog describes Steel Age Grade "A" Files, Grade "A" Counter High Units, Commercial Grade Files, Optional Drawer Inserts, Removable Tray Files, Corrian Files, Correlation Line Desks, 3000 Line Desks, 1000 Line Desks, Specialty Units. Specifications, features and descriptions are included for each piece of furniture along with model numbers. The catalog is loose-leaf bound. Corry, Pa.

SE-519 Vertical Filing Systems

The Plan Hold Story is the title of a new eight page catalog showing four different methods of vertically filing blue prints, maps etc. Included in this Catalog is the proven type "S" Standard Plan Hold which can be used in various home-made racks in place of sticks, slats etc. Holes and other mutilations are completely eliminated with Plan Hold friction type binders—made entirely of light weight aluminum—will hold 1 to 150 sheets. Plan Hold, 5204 Chakemeo St., South Gate, Calif.

SE-520 Weather Controls

Bulletin No. N-756. A chart scheduling the

most suitable Outdoor controls for use with different types of heating systems under varying conditions and requirements has been prepared in this catalog. This chart, together with guide specifications prepared in outline form and scheduled separately for various types of heating systems, requirements etc. are included. AUTOMATIC DEVICES Co., INC., Western Springs, Ill.

SE-521 Food Service Equipment

Progressive Metal Equipment, Inc. has published a new edition of their comprehensive manual of food service equipment entitled Food Service Equipment Manual FS-6-56. The manual is comprised of four basic sections printed on various color stocks for easy reference. The first section is devoted to famous Expan-O-Units, the interchangeable backbars. Additional sections show the Progressive line of water coolers, cafeteria counters, and kitchen equipment. Details are included regarding extensive facilities for manufacture of custom-built items which are made in accordance with individual specifications and can be used in conjunction with standard Progressive equipment. Each section is complete in itself and is available individually. Separate specification sheets of the entire line are also available. Pro-GRESSIVE METAL EQUIPMENT, INC., Rhawn St. at Whitaker Ave., Philadelphia 11, Pa.

SE-522 Acoustical Materials

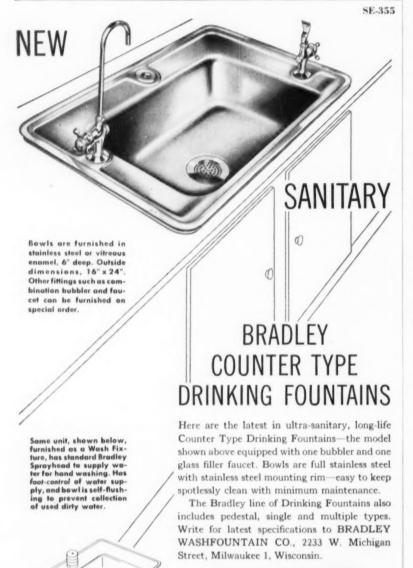
Entitled Quiet At Work, the illustrated booklet outlines the various advantages of different types of acoustical materials. It includes pages on economy, beauty, firesafety and maintenance. The booklet is designed to help provide data needed in choosing materials for specific uses. It discusses technical aspects of acoustical treatment in non-technical terms. A chart summarizing advantages of each product type helps readers determine the material that best suits their needs. Armstrong Cork Co., Lancaster, Pa.

SE-523 Visible Photo Panels, Xerography

A 4-page, 2-color brochure entitled Acme Photo Panels and Xerography illustrates and explains the use of xerography in the preparation and alteration of lists for Acme Visible photo panels, and shows how time and money savings may be effected on price and parts lists, catalogs, directories, indexes, etc. The Haloid Co., Dept. HA-2, 2-20 Haloid St., Rochester 3, N. Y.

SE-524 Laboratory Equipment

Freeze-Drying Equipment for Laboratories is the title of a new 36-page catalog just published by Arthur S. LaPine & Co. Catalog includes descriptions of new freeze-drying units, vacuum gauges and pumps, bath coolers, refrigerated centrifuges, and related laboratory and small-scale production equipment. Described is the method of freezing and then drying under high vacuum which has advantages for preserving heat-sensitive substances such as pharmaceuticals, biologicals, and food. Arthur S. LaPine & Co., 6001 S. Knox Ave., Chicago 29, Ill.



See pages 18 and 19 of Catalog 5601.

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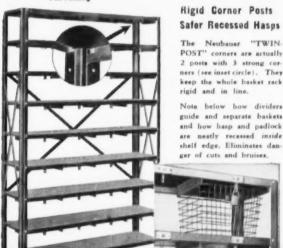


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SE-528 Review Workbooks

Warp Review-Workbooks for the 5th, 6th, 7th and 8th grade teaching are now available for fall classes. The workbooks cover topics on History; Arithmetic; Health; Language; Science; Geography; and Music. WARP PUBLISHING Co., Minden, Neb.



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State of New York, County of New York 88.

School Executive published monthly at New Haven, Connecticut, for October, 1936.
State of New York, County of New York ss.
Before me, a Notary Public in and for the State and County aforesaid, personally appeared Edgar J. Buttenheim, who, having duly sworn according to law, deposes and says that he is the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of August 24, 1912, as amended by the Act of August 24, 1912, as amended by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section \$27, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

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3. That the known bondholders, mortgagees, and other security holders on or look of the company but also, in cases where the stockholder or security holders and security holders, if any, contain not only the list of stockholders and security holders, and security holders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is an acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and bel bonds, or other securities than as so stated by him. Sworn to and subscribed before me this 30th day of September, 1956. New York County Clerk's No. 41-9493500, Commission Expires March 30, 1958.

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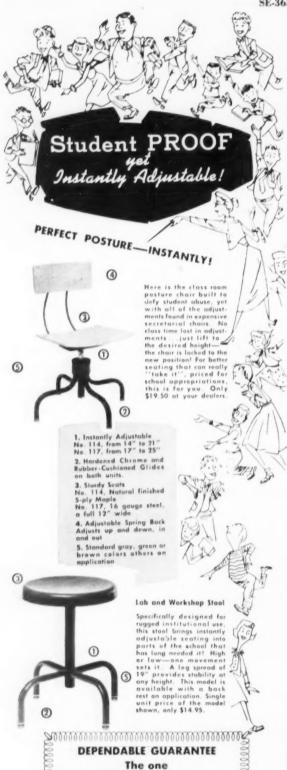


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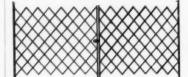
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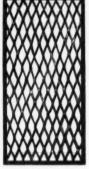
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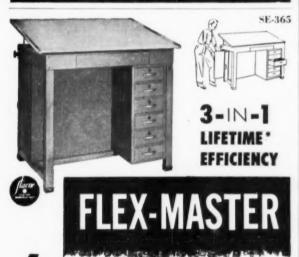
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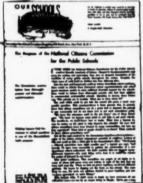
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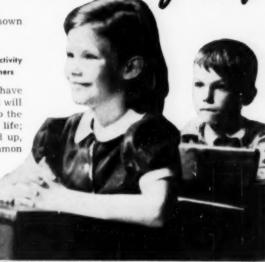
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Index to Advertisers.

ASA	J Advance Floor Machine Co	185
	A'lied Radio	181
	J American Bitumuls & Asphalt Co.	82
AS&	J American City Bureau	36
ASE	American Crayon Co., The J American Desk Mfg. Co	120
	J American Floor Surfacing Ma-	121
	chine Co., The163,	177
ASA	U American Optical, Projection Div.	118
	J American Playground Device Co	165
AS&	U American Seating Co	102
	American Standard Mfg. Co Ampro Corp	181
ASA	U Anchor Post Products, Inc., Fence	73
	Div	122
	Arco Co., The	88
	Armstrong Cork Co	125
AS&	U Bassick Co., The	187
	Bell & Howell Co.	127
400	Benjamin Electric Mfg. Co	189
ASA	U Berin Chapman Co.	170
Mode	Beseler Co., Charles	112
	Bestile Mfg. Co	16
	Bradley Washfountain Co	180
	Breuer Electric Mfg. Co	109
A56	U Brown Co., M. D	186
	Chicago Hardware Foundry Co.,	100
	The	120
ASA	Cincinnati Iron Fence Co U Clarke Sanding Machine Co	10
AS&	U Colorado Fuel & Iron Corp., The,	
	Wickwire Spencer Stee! Div	148
	Columbia Records, Inc.	155
AS&	U Corbin Wood Products & P. & F. Corbin's Div's.	175
ASA	U Corning Glass Warks	142
	Coronet Films	187
	Cram Co., Inc., The Geo. F	161
AS&	U Cretors Corp	157
	Daintee Toys, Inc	173
	Dependable Mfg. Co	184
	Dick Co., A. B34	133
	Dictaphone Corp	150
	Don Co., Edward	185
	Draper Shade Co., Luther O	184
AS&	U Dudley Lock Corp	126
	Duke Mfg. Co	158
	Duracote Corp.	15
	Eastman Kodak Ca	117
	Empire Varnish Co., Waterlox Div.	173
	Equipto Div., Aurora Equipment	17.5
	Co	175
	Executone, Inc.	81
AS&	U Fairhurst Co., Inc., John T.	186
	Fair Play Mfg. Co	86
454	Federal Telephone & Radio Co U Fiberesin Plastics Co	104
Made	Finnell System, Inc.	140
	Fleetwood Furniture Co	94
	Fort Howard Paper Co	18
	Geerpres Wringer, Inc	126
	General Binding CorpBetween	
		109
AS8	U General Floorcraft, Inc.	115
	General Motors Corp., Chevrolet	121
ASE	U Geneva Modern Kitchens	131
	U Griggs Equipment, Inc.	
AS&	U Haldeman-Homme Mfg. Co Hampden Specialty Products, Inc.	167
	Heinz Co., H. J.	27
AS&	U Herman Nelson Div., American Air	
	Filter Co., Inc90	91
AS&	U Heywood-Wakefield Co	157
A36	U Hild Floor Machine Co	171

&U Hillyard Chemical Co. &U Horn Bros. Co., The Brinss Balke-Col ender Co. &U Howe Folding Furniture, Inc. Hunt Pen Co., C. Howard &U Huntington Laboratories, Inc. &U Hussey Mfg. Co., Inc. Illuminating Engineering Co., &U International Business Mach Corp. International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	wick
Balke-Col ender Co. &U Howe Folding Furniture, Inc. Hunt Pen Co., C. Howard &U Huntington Laboratories, Inc. &U Hussey Mfg. Co., Inc. Illuminating Engineering Co. &U International Business Mack Corp. International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	
&U Howe Folding Furniture, Inc. Hunt Pen Co., C. Howard &U Huntington Laboratories, Inc. &U Hussey Mfg. Co., Inc. Illuminating Engineering Co. &U International Business Mack Corp. International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	
Hunt Pen Co., C. Howard &U Huntington Laboratories, Inc. &U Hussey Mfg. Co., Inc. Illuminating Engineering Co. &U International Business Mach Corp. International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	159 97 110 162 161 162 161 162 161 162 161 162 161 162 161 162 161 161
&U Huntington Laboratories, Inc &U Hussey Mfg. Co., Inc	97 110 162 162 168 28, 29 100 114 173 169 105 43 167 110 165
BU Hussey Mfg. Co., Inc. Illuminating Engineering Co., BU International Business Mack Corp. International Seat, Div. of U City Body Co., Inc. BU Irwin Seating Co. Jari Products, Inc. BU Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The BU Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	110 162 162 162 162 162 162 162 162 162 162
Illuminating Engineering Co. &U International Business Mach Corp. International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	
&U International Business Mack Corp	nines28, 29 nion 114 173 169 167 167 167 167 167 165
Corp. International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	28, 29 nion114173169167167165
International Seat, Div. of U City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. BU Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	nion 114 173 169 105 110 167 110 165
City Body Co., Inc. &U Irwin Seating Co. Jari Products, Inc. &U Johns-Manville Johnson & Son, Inc., S. C. Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc.	114 173 169 105 43 167
BU Irwin Seating Co	173 169 105 43 167 145 110
Jari Products, Inc	169 105 43 167 145 110
&U Johns-Manville Johnson & Son, Inc., S. C Judy Co., The &U Kewaunee Mfg. Co. Klopp Engineering, Inc. Krueger Metal Products Co. Lake Shore Markers, Inc	105 43 167 145 110 165
Johnson & Son, Inc., S. C Judy Co., The	43 167 145 110
Judy Co., The	167 145 110 165
&U Kewaunee Mfg. Co	145 110 165
Klopp Engineering, Inc Krueger Metal Products Co Lake Shore Markers, Inc	110 165
Klopp Engineering, Inc Krueger Metal Products Co Lake Shore Markers, Inc	110 165
Lake Shore Markers, Inc	
	183
Loxit Systems	177
Maas And Waldstein Co	4
Manley, Inc.	
Mason Au & Magenheimer	
2	Mason Au & Magenneimer kU Master Lock Co

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AMERICAN SCHOOL PUBLISHING CORP. 470 Fourth Ave., New York 16, N.Y.

	Monroe Co., The	171
	Monroe Calculating Machine Co.,	120
	Monsanto Chemical Co.	129
	Moore Inc., P. O.	179
AS&U	Multi-Clean Products, Inc	143
AS&U	National Cornice Works	161
AS&U	National Lock Co	157
AS&U	National School Furniture Co., Div.	
	of National Store Fixture Co National Super Service Co., Inc	113
	Natural S'ate Blackboard Co	168
AS&U	Nelson Co., Inc., A. R.	144
AS&U	Nesbitt, Inc., John J	190
	Neubauer Mfg. Co	181
AS&U	Newark Electric Co	171
ASBU	Norris Dispensers, Inc.	137
AS&U	Nutting Truck and Caster Co	161
	Page Fence Div., American Chain	
	& Cable Co., Inc	116
	Peabody Seating Co	44
	Peterson & Co., Inc., Leonard	104
AS&U	Pittsburgh Corning Corp100, Pittsburgh Reflector Co	101
AS&U	Pittsburgh Stage, Inc.	179
AS&U	Plastic Products, Inc.	159
A5&U	Playtime Equipment Corp	116
AS&U	Powers Regulator Co., The146,	167
ASAU	Pratt and Lambert, Inc.	92
	Pyramid Enterprises	177
	Radiant Mfg. Co.	99
	Rauland-Borg Corp.	175
AS&U	Remington Rand, Inc	12
AS&U	Rilco Laminated Products, Inc	182
AS&U	Rolscreen Co., The	103
ASGU	Royal Typewriter Co.	119
ASAII	Safe-Lad Mfg. Co	31
AJGO	Schacht Associates Inc.	186
AS&U	Schieber Sales Co	6
	School Executive, The	186
	Semco Sales	163
	Sheldon Equipment Co., E. H	124
AS&U	Sheldon Machine Co., Inc	172
AS&U	Shwayder Bros., Inc	149
AS&U	Sico Mfg. Co., Inc108,	139
AS&U	Simoniz Co	89
AJGO	Sjostrom of Philadelphia	154
AS&U	Snyder Tank Corp	94
	Society for Visual Education	169
AS&U AS&U	Spencer Turbine Co	185
AJGO	Standard Electric Time Co	14
	Straubel Paper Co	179
AS&U	Strong Electric Corp.	111
	Sunroc Corp	
AS&U	Tauber Plastics, Inc.	86
AJao	Thompson Electric Co., The	128
AS&U	Tolerton Co., The	187
AS&U	Trane Co., The40	156
	Tremco Mfg. Co., The	
AS&U	Universal Bleacher Co	
	Verd-A-Ray Corp	17
	Victor Animatograph Corp	135
		30
AS&U	Wayne Iron Works	
	Westinghouse Electric Corp., Stur-	
	tevant Div84	, 85
AS&U	Westmoreland Metal Mfg. Co	8
	White Map Wringer Co	103
	Ford Sales Div.	13
	Young Co., The Paul O	96
ASEU	For catalog data on the products ned by these advertisers, consult the	nanu-
factur	ed by these advertisers, consult the lition of American School and Unive	1956-
31 50		



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